



1987-88 UNDERGRADUATE CATALOG

CLARION

UNIVERSITY OF

PENNSYLVANIA

CLARION UNIVERSITY OF PENNSYLVANIA

CLARION, PENNSYLVANIA

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CATALOG ISSUE

1987-88

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CLARION UNIVERSITY

Academic Calendar 1986-87

Summer Session - 1986

First five-week session June 9-July 11
Second five-week session July 14-August 15

Fall Semester 1986

Registration for day and evening classes Monday, August 25
Classes begin 8:00 A.M. Monday, August 25
Labor Day Holiday Monday, September 1
Thanksgiving Holiday begins 10:00 P.M. Tuesday, November 25
Thanksgiving Holiday ends 8:00 A.M. Monday, December 1
Classes end 10:00 P.M. Friday, December 5
Reading Day Saturday, December 6
Final examination period begins Monday, December 8
Final examination period ends 10:00 P.M. Friday, December 12
Semester ends 10:00 P.M. Friday, December 12
Winter Commencement Saturday, December 13

Spring Semester 1987

Registration for day and evening classes Tuesday, January 20
Classes begin 8:00 A.M. Tuesday, January 20
Spring Vacation begins 10:00 P.M. Friday, February 27
Spring Vacation ends 8:00 A.M. Monday, March 9
Easter Holiday begins 10:00 P.M. Wednesday, April 15
Easter Holiday ends 8:00 A.M. Tuesday, April 21
Classes end 10:00 P.M. Friday, May 8
Reading Day Saturday, May 9
Final examination period begins Monday, May 11
Final examination period ends 10:00 P.M. Friday, May 15
Semester ends 10:00 P.M. Friday, May 15
Clarion Campus Commencement Saturday, May 16
Venango Campus Commencement Sunday, May 17

Summer Sessions - 1987

First five-week session June 8-July 10
Second five-week session July 13-August 14

CLARION UNIVERSITY

Academic Calendar 1987-88

Summer Session - 1987

First five-week session June 8-July 10
Second five-week session July 13-August 14

Fall Semester 1987

Registration for day and evening classes Monday, August 31
Classes begin 8:00 A.M. Monday, August 31
Labor Day Holiday Monday, September 7
Thanksgiving Holiday begins 10:00 P.M. Tuesday, November 24
Thanksgiving Holiday ends 8:00 A.M. Monday, November 30
Classes end 10:00 P.M. Friday, December 11
Reading Day Saturday, December 12
Final examination period begins Monday, December 14
Final examination period ends 10:00 P.M. Friday, December 18
Semester ends 10:00 P.M. Friday, December 18
Winter Commencement Saturday, December 19

Spring Semester 1988

Registration for day and evening classes Tuesday, January 19
Classes begin 8:00 A.M. Tuesday, January 19
Spring Vacation begins 10:00 P.M. Wednesday, March 9
Spring Vacation ends 8:00 A.M. Monday, March 21
Holiday Monday, April 4
Classes end 10:00 P.M. Friday, May 6
Reading Day Saturday, May 7
Final examination period begins Monday, May 9
Final examination period ends 10:00 P.M. Friday, May 13
Semester ends 10:00 P.M. Friday May 13
Clarion Campus Commencement Saturday, May 14
Venango Campus Commencement Sunday, May 15

Summer Sessions 1988

First five-week session June 6-July 8
Second five-week session July 11-August 12

THE UNIVERSITY

MISSION

Clarion University is committed to seeking excellence in all areas of higher education within its mission and to providing an environment which challenges students to develop their talents, to extend their intellectual capacities and interests, to expand their creative abilities, and to develop a life-long respect and enthusiasm for learning. The University is dedicated to helping students see in themselves what they may become and assisting them in becoming all that they can be, and to this end provides them with an opportunity to develop the knowledge, skills, and attitudes required for entrance into a variety of careers and for participation in a free society as enlightened citizens capable of making wise and responsible choices.

In meeting its commitments, the University recognizes its responsibility to admit and retain qualified and enterprising students; to secure and maintain highly qualified and dedicated faculty and staff; to provide an intellectual and social climate conducive to the fullest development of students; to strive for inspired teaching and effective courses of study, to maintain high academic and professional standards for students, faculty, and staff; to provide classrooms, libraries, laboratories, and other facilities necessary to qualify undergraduate and graduate programs; to encourage students and faculty to contribute to new knowledge through research activities; and to provide community and public service programs which are responsive to the needs of society and consistent with the responsibilities and mission of the university.

The specific mission of the University is to provide a broad range of instructional programs, including associate degree programs; upper division courses for students who have obtained the first two years of post-secondary education elsewhere; baccalaureate degree programs in the arts and sciences and applied fields; including teacher education graduate programs in selected fields; and continuing education to meet citizen needs and interests. Along with programs briefly noted, the University mission includes responsibility for providing needed support services, research, and public service.

CLARION CAMPUS

Now well into its second century of service to the people of Pennsylvania, Clarion University has successively been Carrier Seminary, a state normal school, a state teacher's college, a state college, and beginning July 1, 1983, a University. Each phase of this development has marked a stage in the continuing effort of the institution to respond to the educational needs and aspirations of increasing numbers of students.

Today, Clarion University is a multi-purpose institution with an enrollment of approximately 6000 students offering associate degrees in three areas; sixty-seven baccalaureate programs leading to the Bachelor of Arts, Bachelor of Fine Arts, Bachelor of Science, and the Bachelor of Science in Nursing; and eleven graduate programs leading to the Master of Arts, Master of Business Administration, Master of Education, Master of Science, and Master of Science in Library Science.

The main campus of the University contains ninety-nine acres and forty-three buildings, the majority of which were constructed within the past twenty years. Beyond the main campus, situated at the west end of the town of Clarion, is a 27-acre athletic complex with football, baseball and practice fields and Memorial Stadium, seating 5,000 spectators. The university is within the Borough of Clarion some two miles north of Interstate 80 at Exits 9 and 10 and is approximately two and one half hours driving time from the urban centers of Pittsburgh, Erie, and Youngstown. High on the Allegheny Plateau overlooking the Clarion River, the rural setting is in the midst of one of Pennsylvania's most scenic resort areas. The rolling wooded countryside, interspersed with small farms, affords some of the most enjoyable outdoor activities to be found anywhere in northwestern Pennsylvania, and the Clarion River provides an excellent setting for summer boating, swimming, and aquatic sports. Clarion also administers the Ivan McKeever Environmental Educational Center in Mercer County, with modern building facilities in the midst of a two hundred acre wooded area near Sandy Lake, Pennsylvania.

Among facilities supporting programs at Clarion University are Carlson Library housed in a modern library building with a large and continually growing collection, the George R. Lewis Computer Center operating Digital Equipment Corporation computers and associated equipment, several microcomputer laboratories, a planetarium, modern science laboratories having excellent instrumentation, well equipped support areas for special education and speech pathology and audiology, a modern business administration building, technologically equipped classrooms for library science, radio and television studios and experimental audio-visual facilities in the College of Communication, and a writing center, tutorial services, and a counseling center to assist students who can benefit from these services.

VENANGO CAMPUS

Venango Campus of Clarion University, established in 1961, was the first branch campus in the Pennsylvania State System of Higher Education. Located in Oil City, Venango Campus is scenically situated on sixty-two acres surrounded by heavily wooded foothills overlooking the Allegheny River.

Venango Campus is appropriate for those students who prefer the atmosphere of a small campus with its capacity for providing individual attention for each student and for permitting and encouraging varied student initiated activities.

Venango Campus offers programs for both part time and full time students. Students may complete the first two years of college or study for one of seven associate degrees in Business, Nursing, and Rehabilitation.

FACILITIES

ALUMNI HOUSE on Wood Street contains offices for the Alumni Association, and Public Affairs.

BALLENTINE RESIDENCE HALL, located on Wood Street, houses 116 men.

BECHT RESIDENCE HALL, also on Wood Street, houses 160 women plus faculty office space.

BECKER HALL, at Greenville Avenue and Thorn Street, houses the College of Communication, and the Computer Information Science Department.

CAMPBELL RESIDENCE HALL houses 450 students. It is located at the corner of Payne and Wilson Avenues.

CARLSON LIBRARY is on the central campus just off Wood Street.

CARRIER ADMINISTRATION BUILDING at Main Street and Ninth Avenue, houses offices for the President and his staff, The Provost and Academic Vice President and his staff, the Vice President and Dean of Administration and their staff; the Vice President for Development and the Clarion University Foundation and his staff, Office of the Registrar, Business Office, Personnel, Affirmative Action, Student Accounts, Graduate, and Continuing Education offices.

CHANDLER DINING HALL is north of Wood Street behind Ballentine Hall.

CHAPEL THEATRE is located on Wood Street and Eighth Avenue.

DAVIS HALL on Greenville Avenue has classrooms and the Duplicating Center and Print Shop.

EGBERT HALL is on the central campus behind Carlson Library. It has administrative offices for the Vice President for Student Affairs and his staff, the Counseling Center, the Office of Financial Aid, the Office of Educational Opportunities for Student Development, and the Housing Office.

FOREST MANOR, a privately owned university-supervised residence hall located on Grand Avenue, houses 570 men and women students. A dining hall is included in the building.

FOUNDERS HALL is situated at the corner of Wood and Ninth and houses classrooms, History, APPS departmental offices, College of Arts and Sciences Office, and Foreign Student Center.

GIVEN RESIDENCE HALL, situated on the hill behind Chandler Dining Hall, houses 250 women.

HARVEY HALL is on center campus between Peirce Science and Chandler Dining Hall. It contains the John Nanovsky Multipurpose Area for meetings and dances, student activity offices, and a vending machine snack area.

HAZEL SANFORD GALLERY is located on the balcony level of Marwick-Boyd auditorium. The permanent collection covers all media, with special emphasis in photography, prints, artist's books, and ceramics. Exhibitions are scheduled throughout the academic year as well as summer sessions with regular gallery hours weekdays and Sundays.

KEELING'HEALTH SERVICES CENTER off Wilson Avenue, behind Given Hall, has modern clinical and infirmary facilities located on the first floor. The SPA Diagnostic Center is located on the ground floor.

MARWICK-BOYD FINE ARTS CENTER, which stands at the south corner of Payne Street and Greenville Avenue, provides a 1600 seat auditorium, little theatre, Sandford Art Gallery, classrooms, studios, laboratories, office and exhibit areas for Art, Music, and Speech.

McENTIRE MAINTENANCE BUILDING on Wilson Avenue, south of Payne Street, is the center for physical plant maintenance, public safety, the motor pool and maintenance shops.

McKEEVER ENVIRONMENTAL LEARNING CENTER at Sandy Lake, Pennsylvania, is a facility consisting of eight buildings located on a 200-acre tract ideal for environmental and nature activities.

MUSIC HALL, east of Carlson Library, is the residence of the president.

NAIR RESIDENCE HALL provides housing for 450 students and is located on Main Street.

PEIRCE SCIENCE CENTER AND PLANETARIUM between Greenville Avenue and Chandler Dining Hall, provides modern classrooms, laboratories, and offices for Physical Science, Biology, Chemistry, Geography, and Mathematics, a 250 seat lecture hall, and a planetarium.

RALSTON RESIDENCE HALL houses 200 students and is situated on the hill just behind Chandler Dining Hall.

REIMER CENTER is at the north corner of Wilson Avenue and Payne Street. It offers an attractive lounge, snack bar, cafeteria, meeting rooms, recreation area and coffee house circuit.

SPECIAL EDUCATION CENTER, at the corner of Eighth and Greenville, houses the reception area of the Educational Appraisal Clinic, the Speech and Hearing Clinic and their respective therapy rooms, along with some faculty offices and classrooms.

STEVENS HALL, attached to the Special Education Center on Greenville Avenue, provides additional college classrooms and faculty offices for education and special education programs, and offices for the College of Education and Human Services

STILL HALL BUSINESS ADMINISTRATION AND THE LEWIS COMPUTER CENTER are in a single building on the north campus at Main Street and Ninth Avenue.

THORN HOUSES #1 and #2 are located on Thorn Street and hold offices for the Military Science Department (ROTC).

TIPPIN GYMNASIUM-NATATORIUM stands at the north center of Payne Street and Greenville Avenue. It houses classrooms, offices, and gym areas for physical education, a 3,600 seat arena for varsity sports, and a natatorium.

WILKINSON RESIDENCE HALL houses 450 students on the Main Street area of the campus.

WOOD STREET HOUSE contains offices for Career Placement Services.

VENANGO CAMPUS

RICHARD C. FRAME CLASSROOM BUILDING is a modern building containing classrooms, laboratories, and college offices.

ROBERT W. RHOADES CENTER provides student lounge and recreation facilities, a gymnasium, an auditorium-theatre, bookstore, and snack bar.

THE CHARLES L. SUHR LIBRARY BUILDING provides library and study facilities.

MONTGOMERY HALL is a modern classroom and office building which houses the Division of Nursing.

STUDENT AFFAIRS

Office: 220 Egbert Hall

Clarion University is concerned not only with the academic development of young men and women, but also with their development as mature, self-confident, socially competent adults. To assist this development, various student personnel services are provided. These services enable those enrolled in the university to perform more adequately as students and to derive benefits from the academic, cultural, social and recreational opportunities offered by the campus environment. In addition, every administrative and teaching member of the faculty is charged with the responsibility of assisting students to select and achieve goals consistent with the ideals of a university community.

STUDENT PERSONNEL SERVICES

UNIVERSITY-SUPERVISED HOUSING — RESIDENCE HALLS

The University Housing Policy states, "The University considers the residential experience to be an important part of a student's educational program. Housing space will be distributed in proportion to the demand by class with special consideration given a student upon recommendation by either the Student Affairs Staff, Health Center or Counseling Staff."

Within each residence hall, there is a cross-section of students representing most aspects of a highly divergent student body, and the housing assignments are made without regard to race, religion, color, ancestry, or national origin. Hall and roommate preferences stated on housing applications are given consideration in making assignments and are honored whenever possible.

The agreement for assignment to residence halls is for an entire semester unless otherwise specified. The only grounds for an automatic release from the agreement are withdrawal from the University or a change in student teaching or internship assignment.

Housing and food service fees are payable at the same time that other University fees become due. Refunds cannot be made unless the student withdraws from the University or is granted an agreement release. The amount refunded for housing fees is listed in the "Refunds" section of this catalog. Food service fee refunds are governed by a prorated schedule available in the Business Office.

A separate housing and food service application must be submitted for each year. All students returning to residence halls must submit a housing application card at the announced time. Housing information and applications will be mailed to new students prior to registration. After a room assignment is made, the student will be issued agreements to be signed and returned with a non-refundable deposit.

Housing and food services are provided only on a combined basis for students living in the residence halls. Housing and food service agreements may not be transferred or assigned. The meal ticket may be used only by the student to whom it is issued, and a room may be occupied only by the student to whom it is assigned.

Student rooms in the residence halls are furnished with beds, desks, chairs, dressers and closets. Students should plan to furnish pillows, blankets, linen, bed spreads, desk lamps, and small throw rugs. Radios and record players are permitted if they are operated with due consideration for others. Contract linen service is available.

Students are not permitted to keep firearms or weapons in their campus living quarters. The Department of Public Safety will store these articles for students. Students are free to check stored items in and out of the Department of Public Safety at their discretion.

OFF-CAMPUS HOUSING

Students not residing in University-supervised housing live in fraternity houses, rental facilities in the community, or at their own homes. The Housing Office maintains a limited listing of available housing in the community. Householders listing available facilities must comply with all local, state, and federal regulations pertaining to rental units. Other sources of information are local newspapers and realtors.

All arrangements for housing in the community are a business arrangement between the student and the householder. The University does not approve or make recommendations to private, off-campus housing accommodations.

FOOD SERVICE

Wholesome, well-balanced meals are provided in Chandler and Forest Manor Dining Halls by a reputable food service company. All students living in residence halls are required to contract for the full board meal plan. Students not living in residence halls may contract for their meals at Chandler Hall on a semester basis.

STUDENT HEALTH SERVICE

The Student Health Service is located in the Edward J. Keeling Health Services Center. The Health Service provides general health care to enrolled students. The Center is staffed by registered nurses 24 hours per day, seven days a week. A physician and nurse practitioner maintain regular clinic hours and are available on call during nights and weekends. House calls are not made by Health Services staff. Except for emergencies as determined by University staff, transportation to and from the Health Services or local hospital must be provided by the student.

In addition to the treatment of illnesses and injuries, routine physical examinations, information counseling, and some immunizations and allergy injections are available at the Health Services. Many commonly used medications are provided at no additional charge. Medications which are prescribed from a pharmacy, however, must be purchased by the student. Medical equipment such as crutches, canes, slings, braces, etc. are available and may be loaned to students.

STUDENT HEALTH INSURANCE

The Health Center fee which students are assessed applies only to treatment and services at Keeling Health Center. Diagnosis, treatment, services or facilities not available at the Health Center, but required due to an illness or accident, are the financial responsibility of the student. These would include; but are not limited to, x-rays, ambulance, emergency room treatment, setting and casting breaks, and hospitalizations. Without insurance, the cost involved could jeopardize a student's ability to continue his/her education.

The University has negotiated a group accident/sickness insurance plan which is available to Clarion University students. The plan insures the student for an entire year and covers illness or accident when they may occur. Students who have other insurance coverage may have no need for this plan. Students without coverage should seriously consider the purchase of this policy.

COUNSELING AND CAREER PLANNING CENTER

Center staff provides professional services related to developmental,

educational, and vocational goals as well as to problems of personal, social, and emotional adjustment. The services of the Center are available without charge to all regularly enrolled Clarion University students.

Most students request counseling on their own initiative. Some, however, need encouragement from others to seek counseling assistance. These students may be referred by instructors, academic advisors, residence hall staff, administrators, parents, or fellow students. Those seeking counseling services are not just the marginal or immature students; frequently the exceptionally able and the conscientious students require the benefit of professional help in the counseling setting.

In keeping with accepted professional practice, counseling contracts with students are strictly confidential. No information is released to officers of the administration, faculty member, parents, graduate schools, governmental officials, or other outside agencies without the student's written authorization in advance. Rare exceptions to the above policy may occur when, in the counselor's professional opinion, there is a clear, immediate threat to the life or welfare of the student himself, or other students, or the community at large.

CAREER PLACEMENT SERVICES

The Office of Career Placement Services, located in Wilshire House on Wood Street, offers a variety of services to all future and former graduates of Clarion University. Individuals seeking career information and assistance in obtaining entry-level and more responsible positions are invited to visit the office and use the available resources.

All individuals with placement needs -- juniors looking for summer employment or internships; seniors preparing resumes and credentials, interviewing, feeling anxious about getting a job, or thinking about graduate school; alumni wanting to change jobs or careers -- are encouraged to discuss their concerns with a member of the staff. Graduating students and alumni are urged to maintain contact with the office as a means of facilitating entry into the job market.

Some of the specific services and programs offered include the following:

Credentials. Students nearing completion of their degree programs are encouraged to register with the office by establishing a credential file. A \$10.00 placement fee is charged.

On-Campus Interviews. Representatives from a variety of organizations -- businesses, corporations, social service agencies, school districts, and government -- visit the campus during fall and spring semesters to interview graduating students for permanent employment positions.

Job Vacancy Bulletins. Job bulletins are published weekly listing

vacancies received from 1) education and 2) business, industry and government.

Job Search Series. Workshops are offered by the staff during fall and spring semesters on credential file preparation, resume writing, interviewing skills and job search strategies. In addition, staff members are available to offer individual assistance to students with career and job search concerns.

Career Library. Career Placement Services maintains a Career Library which includes information on specific employers, graduate and professional schools, government career opportunities and materials on resume preparation, interviewing skills and job search strategies. A variety of free career-related publications and handouts are available.

PARKING AND AUTOMOBILE REGULATIONS

All provisions of the Vehicle Code of the Commonwealth of Pennsylvania as supplemented by parking regulations issued by the Chancellor, State System of Higher Education and Clarion University will be strictly enforced on the Clarion University Campus. Authority for such enforcement rests with the Director of Public Safety. Persons failing to pay fines will be reported to the District Magistrate and upon conviction will be subject to penalties provided by law.

All persons who possess, maintain, or operate a motor vehicle on campus are required to register such vehicle with the Department of Public Safety. Registering a vehicle does not guarantee a parking space.

1. Persons qualifying for campus parking privileges will be issued a decal indicating that this privilege has been granted and will be assigned to a specific parking area.
2. Any person acquiring the use of a motor vehicle after the regular registration period who intends to operate the vehicle on campus must register the vehicle within twenty-four hours with the Office of the Director of Public Safety. Motor vehicles must be registered even when their use is intermittent rather than regular.

STUDENT ACTIVITIES

Student activities at Clarion are viewed as another means of self-development. Therefore, the responsibility for the success of any activity or organization must rest with the students involved and ample opportunity exists for gaining experience in leadership and self-government.

STUDENT GOVERNMENT

Through participation in student government, students have an opportunity to gain experience in democratic living and self-government. All students become members of the Clarion Students Association upon payment of the CSA activity fee and, thereby, are eligible to participate in the election of the Student Senate, the governing body of the Association. The Student Senate is responsible for expenditure of student activity fees through allocations to the various activities and organizations. The Senate has an important relationship to other Association operations such as the University Book Center and the Student Centers. It also appoints student representatives to various standing committees of the university.

Other opportunities for self-government are provided through the governing boards of the Panhellenic Council, Interfraternity Council, University Center Board, Inter-Hall Council, and residence hall councils.

The full utilization of this leadership is a very necessary element of success in any college or university and the maximum development of the leadership potential of each student must be considered an important part of the educational process. It is a well established fact that even though a university may have an excellent faculty and physical plant, it cannot attain true excellence unless it also has a capable and energetic student body able and willing to accept the responsibilities inherent in leadership.

ACTIVITIES PROGRAM

The purpose of an extensive and varied activities program on campus is to make the University experience richer and more enjoyable. Clarion is fortunate to have a wide variety of activities available to its students.

Many of the major cultural and entertainment functions are sponsored by committees of the University Center Board with student activity fees allocated to it by Student Senate. Examples of such programs are Homecoming Weekend, coffeehouses, campus movies, Miss C.U.P. Pageant, pop concerts, and special performances by noted orchestras, drama groups, speakers, etc. The Black Arts Festival, intercollegiate athletics, and music and drama performances by CUP students and staff are important parts of the total activities program. Honoraries, clubs, and special interest groups further round out this program with speakers, movies, and service projects on and off campus.

Although many of these activities take place in Chandler Dining Hall, the Chapel, Marwick-Boyd Auditorium, and Tippin Gym, the two basic

facilities for students are Harvey Hall and Reimer Center. Harvey Hall provides a meeting/vending area, offices for various student organizations; and a multi-purpose area available for a variety of functions. Reimer Center provides a snack area with adjoining coffeehouse, TV lounge, conference room, games area, listening room, Center Board Office, ticket office, office of the Director of University Centers, and the Student Activities Office.

The following professional organizations and special interest groups are active on campus. Information on athletics, musical groups, speech activities, media organizations, and Greeks is included later in this section.

SPECIAL INTEREST GROUPS

Accounting Office	International Association of
Alpha Phi Omega	Business Communicators
American Chemical Society	Interhall Council
American Marketing Association	Investment Club
Anthropology Association	Jewish Student Union
Art Club	Library Media and Information
Association for Childhood	Science Society
Education International	Management Association
Association of Computing	Mathematics Club
Machinery	Music Educators National
Association of Graduate	Conference
Business Students	Music Marketing Association
Association of the U. S. Army	Muslim Student Association
Bios Club	National Student Speech,
Black Student Union	Learning, and Hearing
Boxing Club	Association
Cheerleaders	Pennsylvania State Education
Circle F	Association
Circle K	Pershing Rifles
Clarion International	Pre-Law Club
Association	Psychology Club
College Republicans	Russian Club
Collegiate Rainbow	Science Fiction and
Commonwealth Association	Fantasy Club
of Students	Sisters, Inc.
Council of Exceptional	Ski Club
Children	Social Economic Association
Data Processing and	Society of Physics Students
Management Association	Spanish Club
English Club	Tennis Club
German Club	University Center Board
GIACT	Young Democrats
Gospeliers	
Health Careers Club	
History Club	

HONORARY ORGANIZATIONS

Alpha Mu Gamma (Foreign Language)
Alpha Psi Omega (Dramatics)
Beta Beta Beta (National Biology Honorary)
Gamma Theta Upsilon (Geography)
Kappa Delta Pi (Education Honorary)
Kappa Kappa Psi (Honorary Band Fraternity)
Lambda Sigma (Library Science Honorary)
Omicron Delta Epsilon (Economics Honorary)
Pi Alpha Theta (History)
Phi Beta Alpha (Business Honorary)
Phi Eta Sigma (Freshman Honorary)
Phi Theta Kappa (Venango Campus)
Pi Kappa Delta (Forensics)
Pi Mu Epsilon (Mathematics Honorary)
Psi Chi (Psychology Honorary)
Sigma Tau Delta (English Honorary)
Society for Collegiate Journalists
Tau Beta Sigma (Honorary Band Sorority)

ATHLETIC PROGRAM

INTERCOLLEGIATE ATHLETIC competition plays an important role in the lives of Clarion students. Clarion University is affiliated with the N.C.A.A. Pa. State Athletic Conference.

The present athletic program includes varsity competition for men in baseball, basketball, cross country, football, golf, swimming, track and wrestling. Competition for women includes basketball, gymnastics, cross country, softball, swimming, tennis, track and field, and volleyball. Co-ed competition is offered in rifle.

Facilities for intercollegiate athletics include the Memorial Stadium and the Waldo S. Tippin Gymnasium-Natatorium. The stadium will seat approximately five thousand spectators for football and track, and has dressing rooms for varsity freshman teams in football, baseball, and track, with separate visiting team dressing, shower, and locker rooms. The football field is surrounded by an all-weather track. The facility also includes a baseball diamond and field, practice football fields, and parking areas for several hundred cars. The Gymnasium-Natatorium, seating approximately four thousand spectators, provides year-round physical education and athletic activities and services.

INTRAMURAL ATHLETICS are provided for men and women students by funds from student activity fees allocated by the Student Senate. The program is planned and supervised by the Department of Health, Physical Education and Recreation. Intramural competition includes touch football, soccer, volleyball, squash, handball, chess, bowling, table tennis, basketball, bridge, "500," wrestling, badminton, archery, billiards, swimming, softball, track and field, water basketball, golf, paddleball, and other areas where interest is sufficient.

MUSIC PROGRAM

CONCERT CHOIR. Membership in the Concert Choir is by audition only. Auditions are held at the beginning of each semester, and membership is open to any student who can satisfactorily pass the audition examination. The Concert Choir has a long and distinguished history as a performing group.

LYRIC THEATRE WORKSHOP. The purpose of the Lyric Theatre Workshop is to offer interested students the opportunity to express their artistic talents and interests in studying and performing literature of the musical theatre. Participants are involved in all facets of stage production including set design and construction, costumes, lighting, staging, set management, props, musical and dramatic direction, makeup, sound and acoustics, instrumental and vocal performance, and dance-choreography. The workshop is open to all students of the University.

MADRIGAL SINGERS. A highly select group of advanced students who possess the techniques and voice which are vital to this specialized area of music. This group is flexible and varies in number from sixteen to twenty voices, depending upon the compositions to be performed. The literature presented by the ensemble represents some of the finest music ever written for voice. In the spring term of each year the group changes to Show Choir and presents Broadway music with choreography.

MARCHING BAND. Ranked as one of the finest university bands in Pennsylvania, the 120 member Marching Golden Eagles has continued its traditionally outstanding musicianship and marching finesse.

The ideals of the band are geared first to develop musicianship and marching precision; second, to inspire and encourage academic achievement; third, to develop character; and fourth, to develop outstanding leadership ability.

The band appears at all gridiron events and is host to the annual band parents' day and alumni band day events.

A Marching Band Revue culminates the season of performance and travel.

SYMPHONIC BAND is a skilled ensemble of ninety wind and percussion players. Membership is dependent upon the outcome of the audition and particular instrumental needs.

Purposes of the Symphonic Band are to perform literature of the highest aesthetic value, with an emphasis on original works for band, to attain perfection in performance ability through rigid requirements for individual musicianship and advanced playing technique; and to provide a means of artistic expression through participation in a distinctive medium of musical expression.

The repertoire of the band is selected from all periods and styles of composition and is designed to meet a variety of program responsibilities.

The Symphonic Band is featured in two major concerts each year and an Annual Spring Tour. Guest artists and clinicians appearing with the band in recent years include Rafael Mendez, Bob Lowry, Warren Covington, James Burke, Frank Arsenault, Roy Burns, James W. Dunlop, William Bell, Martin Mailman, Robert Washburn, and Roger Pemberton.

SYMPHONY ORCHESTRA is a specialized ensemble of approximately fifty players, dedicated to the performance of mainstream literature for the medium. Its membership is drawn from students, faculty, and the community-at-large. The orchestra offers two major concerts each year featuring faculty and student soloists; the ensemble also assists in choral and operatic presentations as well as special projects calling for orchestral instrumentation. The ensemble tours during the spring semester each academic year. Membership is open to all qualified players by consultation with the conductor.

STRING ENSEMBLE provides its participants the opportunity to perform chamber music works for (and with) strings, compositions for solo instruments with string accompaniments, and the compositions for strings alone. Numbering approximately twenty players, the String Ensemble consists of students from across the campus, laymen from the community and selected high school students who intend to matriculate at Clarion University of Pennsylvania. The ensemble presents one scheduled concert each semester on the campus; the organization also offers its services to the community for special programs which may be requested. The String Ensemble sets a tour schedule each spring semester.

LABORATORY JAZZ BAND features a comprehensive study of various schools and styles of jazz through performance, utilizing a jazz ensemble of approximately twenty-five instrumentalists selected on the basis of playing ability. Performance literature includes representative works for large jazz band ranging from styles of the 1930's to the present, with emphasis on recent trends in composition and arranging. The Laboratory Jazz Band presents two formal concerts each year on the university campus and performs for high school and community audiences in tours throughout the Western Pennsylvania area.

BRASS CHOIR is a highly specialized organization offering outstanding students an opportunity to study and perform chamber music for brass. The repertoire is varied with a concentration on early music and music of the twentieth century. Exactitude of intonation, rhythmic precision, phrasing, and proper methods of attack are stressed. The number of students in the Brass Choir will vary somewhat

from semester to semester depending upon the instrumentation of the compositions to be performed. Participation is by audition only.

WOODWIND CHOIR consists of all woodwind instruments regularly found in the concert band. The purpose of this organization is to perform chamber music especially arranged for this medium. Students who have had considerable playing experience on woodwinds (majors and non-majors) may join this organization. An audition is not necessary.

PERCUSSION ENSEMBLE is a highly specialized organization offering outstanding students an opportunity to study and perform chamber music for percussion instruments. Contemporary works, transcriptions of early music, music of various ethnic groups, and jazz-rock works are studied and performed with stress placed on the development of musical concepts and skills such as phrasing, balance, intonation, rhythmic precision, improvisation, and conducting. The ensemble presents percussion concerts and clinics throughout the year on campus and on tours. Membership is open to all percussion majors and other students by audition.

BRASS, STRING, WOODWIND AND SMALL PERCUSSION ENSEMBLES are organized when the talent and instrumentation are available. Membership in these groups is voluntary.

MEDIA PROGRAMS

THE CLARION CALL is the weekly university newspaper. Funded by the Clarion Student Association, it follows regular newspaper style and format. Staff participation is essential for Communication majors; however, anyone interested in journalistic writing is welcome. Prior experience in journalism is helpful but certainly not necessary for success. Certain editorial and business positions receive financial remuneration.

DARE, which is published under the guidance of the English Department, presents a channel of creative communication for those students whose interests and talents are in this area. This publication is the culmination of the year's best in creative writing by Clarion University students.

THE SEQUELLE is the university yearbook. The staff is comprised of students from all major fields of study. Working on the book provides students with an opportunity to display their creativity in the area of journalism and photography. Prior experience is helpful but not absolutely necessary. Professional help is available to the staff as they plan and assemble the book.

CHANNEL 5-TV serves the Clarion area via Centre Video Cable - Channel 5. Weekly programs, both live and tape, present a unique hands-on opportunity to participate in all aspects of the TV productions.

WCCB RADIO is a student-operated radio station providing music and relevant campus, state, and local news and coverage of the Golden Eagle sports. Disc jockeys, newscasters, and sportscasters are chosen at the

completion of broadcast training held each semester. Behind-the-scenes work in public relations, sales, and electronic engineering is available.

WCUC-FM is a non-commercial public radio station serving Clarion county with a power of 1000 watts. WCUC offers a variety of music, news, sports, and public affairs programming.

RELIGIOUS PROGRAMS

Clarion University welcomes students of all religious backgrounds. The following programs are available:

THE NEWMAN CLUB is a religious organization which attempts to meet the needs of students and faculty of any religious denomination at Clarion University. The Newman Club is under the supervision of the Catholic Diocese of Erie and a priest is assigned to the university. The Newman Club provides an office with a meeting lounge which is located at 729 Main Street, across from the main entrance to the Catholic Church. The phone number at the Newman Club is 226-6869.

JEWISH STUDENT ASSOCIATION. Students of the Jewish faith are welcome at the Tree of Life Synagogue which is located in Oil City, Pennsylvania, approximately twenty-five miles from the campus. The Tree of Life Synagogue has an active congregation made up of families who live within about a forty mile radius of Oil City, including several families from the Clarion area.

The J.S.A. also sponsors an active program on the C.U.P. campus.

KOINONIA CHRISTIAN FELLOWSHIP is an active organization on campus. Ten student leaders are in charge of various ministries. The group sponsors weekly fellowship meetings, Bible studies, challenging lectures, weekend social activities, teams of students who visit and evangelize, Christian films, etc.

Koinonia also has its own singing group. The New Creation Singers, and Gospel Puppet Ministry, Koinonia Outreach Puppeteers, which conduct local church services upon request.

Koinonia, which is inter-denominational, works in cooperation with local churches and encourages Christian collegians to attend and participate in the local church of their choice. Faculty advisor for the group is Dr. George Shirley of the Geography Department; Kenneth Banner, is the full-time campus minister for the group and can be reached at 226-4384.

FELLOWSHIP OF CHRISTIAN ATHLETES is a national organization of professional and varsity athletes and coaches. At Clarion the FCA is for all those who desire Christian fellowship and spiritual growth; we serve Christ through numerous activities and ministries.

UNITED CAMPUS MINISTRY is a liaison between local churches and the Clarion University campus. The office of the Coordinator is located in 112 Harvey Hall. A ministry to the entire campus community is planned by a Board of students, pastors and community laypeople.

Participating churches include Grace Lutheran, Immaculate Conception Roman Catholic, First United Methodist, First Presbyterian, and First Baptist.

SOCIAL PROGRAM

SORORITIES provide an opportunity for women students to develop close friendships within a group whose aims are common with their own. They promote scholarship, cultural interests, service projects, and participation in campus activities. The national sororities are Alpha Kappa Alpha, Alpha Sigma Alpha, Alpha Sigma Tau, Delta Zeta, Phi Sigma Sigma, Sigma Sigma Sigma, and Zeta Tau Alpha.

PANHELLENIC COUNCIL is the advisory governing board of all Clarion University sororities. The council promotes cooperation and coordination of activities and standards among sororities and between sororities and fraternities. Two representatives from each of the seven sororities on campus comprise the membership of the council. A major program planned jointly by Panhellenic and Interfraternity Council is Greek Week which is held during the spring semester. The council also sponsors several community service projects throughout the academic year.

FRATERNITIES include ten chapters of national fraternities: Alpha Chi Rho, Alpha Phi Alpha, Delta Chi, Kappa Alpha Psi, Kappa Delta Rho, Phi Sigma Kappa, Sigma Chi, Sigma Phi Epsilon, Tau Kappa Epsilon, and Theta Chi. We also have two locals, Phi Sigma and Sigma Tau which are located on campus. The fraternities at Clarion University are involved in many kinds of activities in the community and on the campus, such as fundraising projects for local and national charities, community service programs, and various social events sponsored by the fraternities. Many of the members are involved in the campus activities program, the athletic teams, or the intramural program.

INTERFRATERNITY COUNCIL is the governing organization of the fraternities and is comprised of representatives elected by each of the twelve fraternities on campus. The IFC is responsible for the coordination of fraternity rush programs, pledging activities, scholarship programs for fraternities, and community service projects. Members of the Interfraternity Council also attended several national and regional conferences to learn new methods to enhance and strengthen the position of all Greek letter organizations on campus.

SPEECH AND DRAMATIC ORGANIZATIONS

PI KAPPA DELTA is a national honorary society in forensics. Active

debate and individual events team members earn the right to membership in Pi Kappa Delta.

ALPHA PSI OMEGA is a national honorary dramatics fraternity. This organization attempts to further the student's knowledge of and involvement with theatre. The chapter sponsors the Alpha Psi Omega memorial scholarship fund which grants theatre awards to deserving students.

INDIVIDUAL SPEAKING EVENTS TEAM is open to all students interested in competitive speaking. Members compete in persuasive, informative, humorous, extemporaneous, and impromptu speaking, as well as in oral interpretation. Tournaments are held at colleges across the country, and to date the team has traveled to twelve states.

DEBATE TEAM is open to any student interested in intercollegiate debating. Clarion competes nationally and has attended tournaments in Louisiana, Arizona, Florida and Washington.

UNIVERSITY THEATER, the campus dramatic organization, is open to all students interested in gaining experience in performance and technical aspects of theatre. Students are welcome to participate in the four major productions, student-directed plays, and the Summer Drama Workshop.

NEW STUDENT ORIENTATION

All new students are expected to attend one orientation session prior to their matriculation. Usually nine separate sessions of two days duration are conducted between the third week in June and the end of July. Parents are welcome and encouraged to attend with their sons and daughters.

The primary objective of the program is to aid entering students in making the adjustment to Clarion University. In order to facilitate that adjustment and allow the students to pursue their education in the best possible manner, the academic and extra-curricular phases of university life are experienced and explored in large and small groups. Pre-registration information and scheduling for fall semester classes culminate the program. Such academic advisement as is possible is conducted during this time.

Registration forms and instructions for the Summer Orientation Program will be mailed during the spring semester prior to enrollment. Students entering in January also attend orientation during the summer.

GENERAL INFORMATION

ACADEMIC ADVISEMENT

PURPOSE

It is the purpose of the academic advisement program at Clarion University to:

1. Assist students in their growth and development.
2. Promote advisor-advisee relationships characterized by trust, mutual respect, and openness.
3. Provide guidance and support for students in their course of academic development through a spirit of shared purposes and freedom of choice in their academic programs.
4. Encourage students to take an active role in developing and completing a sound academic program.
5. Establish a climate of purposeful learning which maximizes student growth and minimizes student withdrawal.

ADVISOR ROLES AND RESPONSIBILITIES

In the advisor-advisee relationship, the student is primarily responsible for seeking academic advisement from the advisor. The central roles and responsibilities of the advisor are:

1. To assist the student in developing a sound academic program by:
 - a. Exploring with each student his/her interests, abilities, and goals
 - b. Assisting the student in developing an academic plan that satisfies graduation requirements
 - c. Offering advice in the selection and sequencing of courses which meet requirements for general education, major, and electives
 - d. Helping the student explore career options that are consistent with his/her program of study
 - e. Monitoring student progress and helping the student make desired adaptations in his/her program
2. To make known to students the programs, resources, and services available in the university that may offer information/assistance at the student's particular stage of academic or career development
3. To establish a relationship of trust and openness which will allow the student to become increasingly self-directing
4. To be a responsive listener to the student in areas of his personal concern and to assist him/her by referral to specialized sources of help when needed
5. To discuss matters of general university adjustment with the student

- 6 To keep informed about university policies, regulations, programs and procedures in order to answer accurately student questions and concerns

STUDENT ROLES AND RESPONSIBILITIES

The student must bear ultimate responsibility for the development of his/her academic program and for meeting all graduation requirements.

In the advisor-advisee relationship, the responsibilities of the student are:

1. To meet with his/her advisor as frequently as is necessary to keep the advisor informed about changes in progress, course selection, career goals, and pre-registration
2. To seek sources of information which will assist him/her in making life/career decisions
3. To contact the advisor when confronted with major academic problems and to keep the advisor aware of other problems which may affect his/her academic performance
4. To be an active participant in the advisor-advisee relationship and to become increasingly self-directing in his/her development as a student
5. To meet all graduation requirements, following the academic plan established by the student in consultation with his/her advisor
6. To maintain personal records of academic progress and to resolve any discrepancies on the official grade reports
7. To become knowledgeable about university regulations, program requirements, and procedures.

ACCELERATED PROGRAM

Students who take three summer terms of ten weeks each may finish the four-year course in three years.

ADVANCED PLACEMENT

See Credit by Examination statement.

CORRESPONDENCE DIRECTORY

Academic Affairs

Vice President for Academic Affairs and/or

Assistant Vice President for Academic Affairs

Admissions

Dean Admissions and Enrollment Management

Alumni Affairs

Alumni Secretary

Business Affairs, Fees, Refunds

Business Manager

Teacher Education Certification

Dean of Education and Human Services

Courses and Curricula

Appropriate College Dean

Placement Credentials

Career Placement Services

Educational Opportunities Program/Act 101

Director

Financial Aid

Director

Foreign Student

Advisor

Readmissions and Withdrawals

University Registrar

Special Services Program

Director

Student Affairs, Organizations, Activities

Vice President for Student Affairs

Summer Classes

Assistant Vice President for Academic Affairs

Transcripts and Records

University Registrar

Address for all above named officials:

Clarion University of Pennsylvania

Clarion, Pennsylvania 16214

COURSE NUMBERING

Courses numbered 100 to 299 inclusive are primarily for Freshmen and Sophmores; 300 to 499 for Juniors and Seniors. Some courses numbered between 400 and 499 are acceptable for graduate credit. Courses numbered above 500 carry graduate credit.

The University reserves the right to change the sequence and number of courses.

CREDIT BY EXAMINATION

1. C.L.E.P.

A maximum of 60 credits may be earned through the College-Level Examination Program (C.L.E.P.). No more than 30 of the 60 credits may be earned after admission. These examinations, administered by the College Entrance Examination Board may be taken at the Venango Campus of Clarion University on 3rd Fridays. They are designed for adult learners and non-traditional students who have gained college-level knowledge through prior education or training. The College-Level Examination Program includes five general examinations and approximately fifty subject examinations, which if successfully passed, will earn the student 3 credits per examination. Details on the general and subject examinations and minimum acceptable scores are available in the Office of the University Registrar.

2. Advanced Placement Program

Students may also earn credit and advanced standing through the Advanced Placement Program of the College Entrance Examination Board. This program is designed for high school students who expect to enter college and who have participated in one or more of the advanced classes while in high school. There are eleven subject areas in this program and any high school student who earns a score of three or better in a subject area will be granted three credits. The National Advanced Placement Examinations are given in May of each year.

3. Transfer of Credits Earned by Examination

For transfer students, credits granted by way of C.L.E.P. or Advanced Placement Examination at other accredited institutions will be accepted if the minimum scores on such examinations meet the minimum standards of Clarion University.

4. Proficiency Examinations

Course credits not to exceed 38 semester hours may also be earned by proficiency examination for advanced college work administered by the departments in which the particular proficiency is taught. Students who appear to possess a proficiency equal to or greater than that required in a particular course may make application for such an examination in the Office of the Registrar; the

chairman of the subject area concerned will determine the validity of the application. Minimum qualifications for proficiency examination applications are as follows: first semester freshmen must have scored 550 or above in the verbal on the SAT; students other than first semester freshmen must have a quality point average of 2.50 or above; in no case may a student earn credit for a course more than once for any given subject. A fee of \$25.00 is charged for each examination taken.

5. Credit for Life Experience

Clarion University may grant credit for life experience based upon careful evaluation of such experience. For information, one may contact the Office of the Registrar, the dean of the College in which he/she is enrolled, or the chairman of his/her major department.

EVENING CLASSES

Evening classes are organized each semester for the convenience of regular students, in-service teachers, and others who may be interested in college courses. Work done in these courses give customary college credit and may be applied toward a degree. Information concerning course offerings may be secured by writing to the Office of the Registrar. Evening classes are part of the regular university program and are an extension of the usual day schedule.

GRADE RELEASE POLICY

Public Law 93-380 (The Family Educational Rights and Privacy Act of 1974) prohibits the release of educational records, other than to certain defined exceptions, without the student's consent. One such exception is Section 438(b)(1)(H) which allows release of educational records to, "Parents of a dependent student of such parents, as defined in Section 152 of the Internal Revenue Code of 1954."

Under the provisions of Section 438, the Office of the Registrar will send grades to parents. Students who are not dependents, meaning they are not so claimed by parents for income tax purposes, may have their grades withheld from their parents by filing a request at the Office of the Registrar that their grades are not to be sent home.

INDEPENDENT STUDY

Independent study opportunities are available to students dependent

upon faculty and financial resources available. Acceptance of students for independent study is voluntary on the part of a faculty member and must be approved by the appropriate department chairman, college dean, and the Office of Vice President for Academic Affairs. Students accepted for independent study are upon request entitled to five hours of faculty time for each hour of independent study credit carried.

NONDISCRIMINATION ON THE BASIS OF HANDICAP

Federal Law (Section 504 of the Rehabilitation Act of 1973) provides that no qualified handicapped person shall, on the basis of handicap, be excluded from participation in, be denied the benefits of, or otherwise be subjected to discrimination under any program or activity that receives or benefits from federal financial assistance. This provision of law applies to Clarion University and the effect of this law is to ensure that

- (1) no one may be excluded from any course, or course of study, on account of handicap;
- (2) classes may be rescheduled for students with mobility impairment if they are scheduled for inaccessible classrooms;
- (3) academic degree or course requirements may be modified in certain instances to ensure full participation by handicapped students;
- (4) alternate methods of testing and evaluation are available in all courses offered by the university for students with requirements for such methods;
- (5) auxiliary aids are made available by the university for students with impaired sensory, manual, or speaking skills;
- (6) certain campus rules and regulations may be waived if they limit the participation of handicapped students; and
- (7) housing opportunities, employment opportunities, and other opportunities for handicapped students are equal to those of non-handicapped students.

As part of the university registration process, students are provided with a form on which they may list any special accommodations required due to handicap. If a student experiences difficulty in obtaining such special accommodations, the student may submit an appeal or grievance to the department head or other university official responsible for the accommodations and, if necessary, to the Section 504 coordinator.

RESERVE OFFICERS' TRAINING CORPS (ROTC)

Clarion University of Pennsylvania hosts a detachment of the U.S.

Army Reserve Officers' Training Corps. Enrollment in the first two years of ROTC incurs no military obligation and allows the option of competing for an ROTC scholarship. Successful completion of the Advanced course ROTC program and upon graduation from Clarion, the student will receive a commission as a Second Lieutenant in the United States Army. Newly commissioned officers either serve on active duty or serve with the Army Reserve or National Guard.

Students seeking advanced degrees can be granted an educational delay following completion of their baccalaureate degrees. Additional information can be obtained at the Military Science Department office. Curriculum details are presented elsewhere in this catalog.

RESIDENCE REQUIREMENTS

With the exception of established cooperative degree programs, to be eligible for a baccalaureate degree from Clarion University a student must meet all requirements for the degree, including a minimum of 45 semester hours of credit in residence out of the last 64 needed for graduation, effective Fall, 1985, for students entering at that time. All credits, including transfer credits, must be approved by the appropriate college dean or director and department chair of the academic area in which the degree is to be granted.

SECOND BACCALAUREATE DEGREE

Students may earn a second baccalaureate degree at Clarion by completing a minimum of 30 credit hours (excluding physical education activities) beyond those taken for the first degree and by completing all of the requirements for the second degree. Students who remain in continuous residence at Clarion University after obtaining one degree may go on to finish the second in a total of 158 credit hours, but students who have been graduated from Clarion and left the university and students who have a baccalaureate degree from another institution, must complete a minimum of 30 additional credit hours for a second degree regardless of the number taken for the first degree.

It is not necessary to complete a second degree in order to earn a second major. The student seeking a second major must fulfill all requirements for that major but may choose not to meet requirements related to earning a second degree. For example, a student working toward the B.A. degree with a certain major may wish to earn teaching certification for that same field and can schedule a good share of the courses required for certification as free electives. As a result the student may be able to complete all teacher certification requirements without

earning a total of 30 credits beyond the 128 required for the B.A , as would be necessary to achieve the addition of the B.S. in Education.

SENIOR CITIZENS

Persons on social security or equivalent retirement benefits are given remission of fees for classes where space is available.

STUDENT RECORDS

Student academic and personal records are confidential in nature and shall be released only to appropriate faculty and administrative officers and to parents and guardians if the student is a dependent. Release of these records to other persons, institutions, or governmental and legal agencies shall occur only upon approval by the student or graduate or upon subpoena.

Transcripts of academic work are available to the student or graduate at the Office of the Registrar when requested by him or her in writing. The first transcript is free; thereafter, the charge is \$3.00 per transcript.

Clarion University uses students' social security numbers solely for identification and recordkeeping purposes. Disclosure of the SSN is not mandatory and alternative identification numbers will be issued if requested.

POLICY ON CLASS ATTENDANCE

Clarion University of Pennsylvania regards student participation in class as essential to the learning process. Therefore, regular classroom attendance is required of all students. Faculty members determine the absence policies for their own classes, except that participation in university sanctioned activities will be excused and the student will be given reasonable assistance when class work is missed. It is understood that absence does not excuse the student from course work and the responsibility to complete assignments on time. If a student knows that a class must be missed, the instructor should be notified in advance and arrangements made to complete the work. The instructor is not required to give make-up examinations or accept class work missed as a result of an unexcused absence.

INTERNATIONAL EDUCATION — STUDY ABROAD

Clarion University, as part of its mission to serve the educational needs of the citizens of the Commonwealth of Pennsylvania, is dedicated to strengthening the international and intercultural dimensions of its programs and activities. The leadership of the University recognizes the interdependence of nations and peoples throughout the world.

There are currently about 160 international students from more than 40 countries on the Clarion campus. International students are important members of the Clarion University community. Their presence reflects a deep appreciation for their intellectual capacities and their cultural contributions to this University. The international students on the Clarion campus also present the University with the opportunity to influence significantly future leaders and scholars around the world.

Clarion University offers an inexpensive summer program in Mexico. Designed for students who are not majoring in Spanish, the program includes, in addition to language instruction, a variety of cultural and social experiences. Participants earn six academic credits. Many students participate in the program as an alternative means of meeting the foreign language requirements for the B.A. degree.

Clarion students may take advantage of a seven-week summer session at the University of Valencia on the Mediterranean coast of Spain. Courses in Spanish language and literature are offered at all levels, from first semester Spanish through in-service teacher graduate work.

In the heart of French Canada and within a reasonable driving distance from Clarion, the University of Quebec, Trois Rivières, offers programs and courses at all levels for the summer as well as the regular academic year. The Summer Program at the University of Quebec has many exciting features: large selection of courses, beautiful campus, excellent food, many cultural activities, sightseeing trips in historical Quebec Province, and the opportunity to live with French speaking families.

Among a wide choice of study programs in Germany, Clarion students have most successfully attended summer courses at the University of Stuttgart. Inexpensive housing with German families, free excursions to the Black Forest and the Alps, social events, visits to theatre and opera, field trips to Mercedes Benz and other factories are rounded off by a unique peer-tutoring system of German students.

Clarion University is an active member of the Pennsylvania Consortium for International Education (PCIE). PCIE summer programs are available for Clarion students in England, France, Italy, and Austria. Academic year-abroad program through PCIE member institutions are conducted in England, Austria, Poland, and several other countries.

The International Student Exchange Program (ISEP), of which Clarion is a member, offers Clarion students the opportunity to pay tuition to CUP, but attend an institution in any of more than 25 countries for a semester or academic year.

The CUP Office of International Programs (OIP) coordinates and

administers all international-related activities on campus, including the International Student Office, Study Abroad Programs, and grant and fellowship possibilities. International internship assignments are coordinated through the OIP. The OIP also organizes forum and film programs on important world issues each semester in conjunction with the Clarion International Association.

SUMMER SESSION

The Summer Session is maintained for the benefit of regular Clarion University students, incoming freshmen, students in good academic standing at other institutions, graduates of approved colleges and universities, teachers who wish to meet certification requirements, certain high school students, and any adults who wish to attend classes. In addition to the regular undergraduate and graduate course offerings, there are also workshops and special programs.

Clarion University and the surrounding area offer numerous opportunities for summer activities. There are normally two consecutive five-week sessions. Interested persons should contact the Summer Sessions Office for details.

VETERANS' AFFAIRS

Clarion is approved by the Veterans Administration to offer the regular degree curricula to veterans and children of deceased veterans.

Credit for educational experience in the armed services is allowed on the basis of the recommendations of the American Council on Education.

The university grants a maximum of 4 credits in Health and Physical Education for active military service of 6 months or more with honorable discharge or continued reserve status. Credit is normally given for HPE 111, (2 credits), and 2 HPE activity courses of 1 credit each. To assure that the credit is granted, veterans should bring an honorable discharge document to the Office of the Registrar, Carrier Administration Building

ADMISSIONS

ADMISSION OF FRESHMEN

In accordance with the principles governing admission adopted by the Commission of Presidents, four general requirements have been established for admission to Clarion University:

1. General Scholarship
2. Character and Personality
3. Health and Physical Vigor
4. College Entrance Examination Board Test or American College Test.

Applicants for admission must satisfy the following requirements as outlined in detail below:

1. General scholarship as evidenced by graduation from an approved secondary school or equivalent preparation as determined by the Division of Professional Certification and Credentials Evaluation Division of the Pennsylvania State System of Higher Education. The applicant must submit scores earned on the Scholastic Aptitude Test administered by the College Entrance Examination Board or scores earned in the American College Testing Program. Arrangements for taking these examinations are to be made through the high school guidance counselor.
2. Satisfactory character and personality traits as well as proper attitudes and interests as determined by the high school principal, guidance director, or other school official acquainted with the student.
3. Health and physical vigor: Clarion University subscribes to and supports in letter and spirit Section 504 of the Rehabilitation Act of 1973 (Public Law 93-112), which prohibits discrimination on the basis of handicap. Therefore, the role of Admissions in application of this criterion is to be aware of the institutional obligation under Section 504 and to help the applicant understand that the university wishes to support his/her efforts to meet the requirements of a program he/she chooses. In instances in which a student has a handicap which would render success in a chosen field unlikely, the matter should be brought to the attention of the Director who will alert the appropriate dean so that reasonable counseling may be used. Specific questions related to this criterion should be referred to the Director.
4. Request the College Entrance Examination Board of the American College Testing Program to forward aptitude test scores to Clarion.

All liberal arts applicants and education applicants who intend to major in a foreign language must schedule an achievement test in the

language, if that language has been studied in high school. The achievement tests are administered by the College Entrance Examination Board. Arrangements to take the tests may be made through the high school counselor.

ADMISSION OF FRESHMEN IN AUGUST, 1987

Applicants for admission to the freshmen class in 1987 should read and observe carefully the following procedures:

1. Come in or send to the Admissions Office of the University for the forms necessary in making application for admission. There are two of these: (1) application and personnel record blank and (2) the report from secondary school officials.
2. Send the personnel record to the University along with an application fee of \$15.00 payable to Clarion University of Pennsylvania. This fee is not refundable. The secondary school record must be sent directly to the University by the principal or other school official. A medical form is to be completed after the applicant has been accepted.
3. A registration deposit of \$50.00 must be paid when the applicant receives notice of approval of his application for admission. This fee is not refundable but is credited toward the student's basic fee upon registration.
4. Clarion University applicants may ask for a decision as early as July 1 following their Junior year in high school. This would require the applicant to have taken the Scholastic Aptitude Test or the American College Test in the junior year.

PART TIME ADMISSIONS

Students who wish to participate in the part-time admissions program must obtain a Quick admit form from the Admissions Office.

A part-time student MAY apply for degree candidacy after the completion of 11 credit hours. A part-time student MUST apply and be approved for degree candidacy by the time he/she has earned 11 credit hours. This process includes the non-refundable application fee, high school transcripts, and college transcripts, if applicable. **STUDENTS WHO HAVE NOT BEEN APPROVED FOR DEGREE CANDIDACY AFTER THE COMPLETION OF 11 CREDIT HOURS OF PART-TIME STUDY WILL NOT BE PERMITTED TO CONTINUE AT THE UNIVERSITY.**

TRANSFER POLICY AND ADMISSION WITH ADVANCE STANDING

Clarion University welcomes applications from students who wish to transfer from another school to Clarion. Certain guidelines have been established to provide uniformity of transfer standards.

1. Students may transfer credits from regionally accredited institutions.
2. The student must be in good standing academically and socially. It is the applicant's responsibility to have an official transcript submitted and other necessary materials to evaluate a transcript.
3. The initial evaluation of the transcript is done by the Admissions Office. The student can learn which courses will be accepted by the University. The final evaluation is done by the College Dean of the student's major. It is the College Dean's responsibility to determine whether the course will be considered as part of the major or as an elective.
4. Credits are transferable but quality points are not transferable.
5. A student must receive at least a "C" grade or better in order to transfer that course to Clarion.
6. All courses transferred must be recognized in content and quality as similar to the curriculum approved for academic credit by Clarion University.
7. Transfer students must fill out the regular application, have high school transcripts sent to the Admissions Office, have college transcripts sent to the Admissions Office and pay the \$15 non-refundable application fee.

Graduates of Pennsylvania Community Colleges with the Associate of Science or Arts Degree are accepted by the University as transfer students with two full years of academic credit.

Clarion University generally does not accept more than 64 credits from two-year institution. Applicants from Pennsylvania Community Colleges without the Associate Degree will be processed as any other transfer applicant.

FOREIGN STUDENTS

Students who have been graduated from high school (or equivalent) where the language of instruction is not English, will be exempted from any general foreign language requirement at Clarion University. Neither academic credit nor life experience credit will be granted for knowledge of one's native language, except when specific courses offered at Clarion University are taken or challenged by examination.

WITHDRAWALS

All class withdrawals must be made through the Office of the Registrar. Classes from which a student withdraws during the first two weeks of a semester will not appear on his/her record. Withdrawals between the end of the second and ninth weeks may be made without penalty. After the beginning of the tenth week of a semester or the second half of a summer session, a course from which a student withdraws shall be finally reported with a grade of "E." Exceptions may be made for withdrawals due to extenuating circumstances such as illness or some other unavoidable occurrence.

If a student is on probation at the time of withdrawal from all classes and the withdrawal is after the twelfth week of the semester, he/she will not be permitted to return for the following semester unless the withdrawal is based on extenuating circumstances.

If a withdrawal is not made through the Office of the Registrar, a failing grade will be recorded for the affected course(s).

Any student who withdraws from the university either during or at the end of the semester must notify the Office of the Registrar of his/her intention to withdraw and the reason for withdrawal. This is necessary for completion of the student's permanent record. Failure to comply with this regulation will constitute an unofficial withdrawal and may affect the student's chances of future readmission or his/her obtaining an honorable dismissal.

SCHOLARSHIP REQUIREMENTS

Student progress is normally reported once each semester. At the end of the first six weeks, each staff member submits to the Office of the Registrar a report of all freshman students doing unsatisfactory work in their classes. These reports are recorded and then passed on to the students.

GENERAL POLICIES

Scholarship policy at Clarion University is formulated by the Subcommittee on Academic Standards, which is a sub-committee of the Faculty Senate.

Scholastic standing of students is determined on the basis of a quality point system in which a grade of "A" equals 4 quality points per semester hour; "B" equals 3; "C" equals 2; "D" equals 1; and "E" equals 0. The number of quality points earned in a single course for one semester is determined by multiplying the quality point value of the course grade by the number of semester hours in the course; thus, a grade of "A" in a

three semester hour course has a quality point value of 12. A student's quality point average at any specific time is determined by dividing the total number of quality points earned in all courses by the total number of semester hours of credit attempted. For example, if a student earns a total of 30 quality points from 15 semester hours of course work in a single semester, his/her quality point average for the semester is 2.00.

At the end of each semester, a student's quality point average is calculated for that semester and also for all the course work he/she has taken up to and including the semester just completed. The latter is known as the cumulative quality point average.

Scholarship policy for two year programs requires that a student earn a minimum quality point average of 1.75 his/her first semester and a 2.00 his/her second semester and thereafter in order to be in satisfactory academic standing. His/her cumulative quality point average should be 2.00 by the end of the second semester.

In order to remain in the Medical Technology Program, students must maintain the following grade point average: first semester freshmen, 2.0; second semester freshmen and first semester sophomores, 2.5; thereafter 2.75 with a 2.75 in the natural sciences. Exceptions to these requirements must be approved by the Coordinator of Medical Technology.

Admission to the Medical Technology Program at the university does not guarantee admission to the year in the hospital laboratory. Hospital spaces are limited and admissions standards, which are under the control of the individual hospitals, are quite high.

Business students pursuing the BSBA who enter the College or University in the summer or fall of 1982 (or afterward) must apply for admission to the College's Upper Division. Students should apply after they have completed 50 semester hours of work and have met certain other Upper Division requirements. In addition, business administration students must meet graduation standards beyond general University requirements. These academic standards are fully described under the "College of Business Administration" entry later in this catalog.

TEACHER EDUCATION SELECTION AND RETENTION STANDARDS

I. Certification Requirements

- A. Complete all program requirements of the Teacher Certification program at Clarion University.
- B. Pass appropriate Pennsylvania Department of Education examinations in:
 1. General Education
 2. Content Area(s) of Certification
 3. Professional Education
 4. Basic Skills
- *C. Satisfy mental and physical qualifications as established by the Pennsylvania Department of Education.

*Compliance with the Public School Code of 1949, as amended Article XII, Section 1209, which in part provides that teaching certification may not be issued if the "applicant is either mentally or physically disqualified, by reason of tuberculosis or any other communicable disease or by reason of mental disorder from successful performance of the duties of a teacher."

- D. Any academic, physical, or mental deficiencies, noted at any point in the student's program, that would prevent the candidate from fulfilling the responsibilities of the certification area, must be removed before admission to a teacher certification program. Deficiencies identified after admission to the certification program must be removed before the candidate may continue in the program.

II. Certification Sequence

- A. Admission to Teacher Certification Program Requirements:
 - 1. Completion of 60 semester hours including 6-9 semester hours of introductory professional courses to be determined by the appropriate departmental faculty of the College of Education and Human Services. These introductory courses must be completed with a grade of C or better.
 - 2. Basic skill competency in written expression, oral communication, and computation as evidenced by grades of C or better in ENG 111, SCT 113, ED/CIS 217, and a mathematics course numbered higher than MATH 110. Accepted university proficiency examinations may be substituted for courses as specified in the catalog.
 - 3. A minimum quality point average of 2.5 for all courses completed.
 - 4. Pass a Pennsylvania Department of Education competency test of basic skills.
- B. Admission to Student Teaching
 - 1. Satisfactory standing in relation to all admission and retention requirements of the University and the College of Education and Human Services.
 - 2. Completion of at least 90 semester hours of university credit.
 - 3. Satisfactory completion of all required professional courses as determined by the appropriate departmental faculty of the College of Education and Human Services. These courses must be completed with a grade of C or better.
 - 4. A minimum cumulative quality point average of 2.5 for all course work.
- C. Graduation Requirements
 - 1. Fulfillment of all university standards for graduation
 - 2. A minimum grade of C in each student teaching experience.
 - 3. A minimum cumulative quality point average of 2.5 for all course work.

III Procedures: Students are responsible for:

- A. Seeing that application forms are completed for

1. Admission to Teacher Certification
 2. Admission to Student Teaching
 3. Graduation from the University
 4. Certification from the Commonwealth
- B. Meeting with their advisors at each of these checkpoints for conferencing and to obtain the appropriate forms.
- C. Arranging for any tests needed to comply with the Public School Code of 1949, as amended, Article XII, Section 1209.

GRADING SYSTEM

A	Excellent
B	Good
C	Satisfactory
D	Poor
E	Failure
CR	Credit
CX	Credit by Examination
Inc	indicates incomplete work
P	Passing
W	indicates withdrawal from a course
WX	indicates withdrawal from the university
Z	grade not submitted

Inc (incomplete) is not used unless a student has been in attendance through a semester or session. It indicates that the work of a student is incomplete and that the final grade is being withheld until the student fulfills all the requirements of the course. It is used only when conditions and circumstances warrant and when evidence is presented to justify its being given.

Students receiving incomplete grades are required to make arrangements with the instructor who submitted the incomplete grade to fulfill the requirements of the course by the end of the following semester or the incomplete becomes a failing grade. Incompletes are not removed by repeating the course.

Credit - No Record Courses. After a student has earned a minimum of 30 semester hours of credit and if he/she is in good academic standing, he/she may schedule a maximum of 6 courses or 18 semester hours for Credit - No Record. One such course may be taken each semester or summer session. This regulation does not apply to internships in the cooperative education program. All such internships are automatically Credit - No Record. Courses in one's major field may not be taken for Credit - No Record. The option for taking a course for Credit - No Record is limited to the first five weeks of each semester, and the first four days of any five week summer session. Satisfactory work in a Credit - No Record course shall be shown on the grade report as "CR," with no record and

no credit for less than satisfactory work. Satisfactory work is defined as the equivalent of "C" grade or better under the letter grading system currently in use by the university. Should a student desire to have a Credit - No Record course changed from "CR" to a letter grade, he/she must retake the course. Credit - No Record courses are counted in determining the course load for a semester.

GRADUATION REQUIREMENTS

A student must present a minimum cumulative quality point average (QPA) of 2.00 on a 4.00 scale except in Colleges where the stated QPA requirements are higher. Beginning with enrollments for the summer or fall of 1982, a student must also present a minimum QPA of 2.00 on a 4.00 scale in the major. Major courses are all those courses in Group II and III on the check sheet. All candidates for undergraduate degrees must have a minimum of 128 semester hours of credit (Music Education requires 130-131), and must have met all the general education requirement in English 111 with a "C" or better in order to qualify for graduation.

For the Associate Science degree, the student must have a cumulative quality point average of 2.00 on a 4.00 scale, and beginning with the summer or fall of 1982, a student must also present a minimum of 2.00 on a 4.00 scale in the major. All AS graduates must have a minimum of 62 semester hours of credit to qualify for graduation.

Students should study carefully requirements for individual programs presented in the section of this catalog detailing the program.

CLASS STANDINGS

Class standings (freshmen, sophomores, etc.) are determined by credits earned rather than by semesters of residence: Freshmen, 1-31 credits; Sophomores, 32-63 credits; Juniors, 64-95 credits; Seniors, 96-128+ credits.

GOOD ACADEMIC STANDING

To be in good academic standing at Clarion, undergraduate students must maintain a minimum quality point average of 2.00 for both semester and cumulative averages. Individual programs may have higher requirements.

STUDENT TESTING PROGRAM

All new freshmen and transfer students are required to participate in the University testing program to measure the degree of growth among its degree seeking students. A post-test will be required in order to measure progress.

SATISFACTORY PROGRESS TOWARD A DEGREE

In order to continue to receive any Title IV assistance, a full time student must be maintaining "satisfactory progress" (also referred to as "normal progress") in his or her course of study. Section 497(e) of the Higher Education Act of 1965, as amended, requires an institution of postsecondary education to have standards of satisfactory progress. If an institution or school does not have any standards, it can neither commit nor disburse any Title IV assistance to its students because it has no means of complying with the statute.

The requirement that a full time student be making satisfactory or normal progress should not be confused with the good academic standing requirement. A conceptual difference exists between the two. **Good academic standing means that a full time student is allowed by the institution to continue in enrollment. Satisfactory or normal academic progress means that the regular student is proceeding in a positive manner toward fulfilling degree or certificate requirements in his or her course of study.**

A full time student must be certified by the institution as making normal progress before receiving any additional Title IV assistance, including GSL checks. This certification must be completed at least annually under current federal regulations.

Under the guidelines governing the PHEAA grant program and all Title IV assistance programs, **a student must satisfactorily complete 24 new credit hours every two semesters, including summer, to maintain eligibility. Part-time students must satisfactorily complete 12 credit hours per year, including summer, to maintain eligibility for some federal programs.**

ACADEMIC PROBATION

To be in good academic standing, undergraduate students must maintain a minimum quality point average of 2.00 for both semester and cumulative averages.

Students falling below the 2.00 standard in either the semester or cumulative average will be placed on academic probation effective the next semester of attendance.

Sophomore, junior, and senior students with a cumulative average lower than 2.00 who fail to achieve at least a 2.00 semester average while on probation will be suspended.

Second semester freshmen on probation who fail to achieve at least a 1.75 **cumulative** or a 2.00 **semester** average will be suspended.

ACADEMIC SUSPENSION

1. Students on probation who fail to achieve good academic standing will be suspended. Most, but not all, suspensions become effective at the end of the spring semester. Students who are placed on probation or suspension are informed by letter, a copy of which is sent to the student's parent or guardian if the student is a dependent as defined elsewhere in this catalog.
2. Students notified of academic suspension have the following alternatives:
 - a. The student may apply for readmission to Clarion after an absence of one or more semesters provided the suspension was the student's first.
 - b. The student may attend summer sessions at Clarion. If the student earns the required **cumulative** average by the end of the summer, the suspension will be rescinded **and the student will be continued on probationary status for the fall semester.**
 - c. The student may appeal the suspension, **in writing**, to the Academic Standards Committee if the poor academic performance was caused by unusual circumstances beyond the student's control or if for other reasons it is not indicative of future performance. Such petitions should be filed with the committee through the Office of the Registrar before January 5 for spring semester and August 15 for fall semester enrollments. The format of the appeal should follow the guidelines given under READMISSION below.
4. Suspended students are permitted to take 6 credits at another accredited institution after consulting with their dean. Clarion permits transfer of these credits provided the credits are applicable to the student's program and a grade of C or better is earned. Clarion accepts credits and grades from accredited institutions, but quality points do not transfer.

READMISSION

The student appealing an academic suspension or applying for readmission after an academic suspension must apply in writing to the Office of the Registrar. Deadlines are August 15 to enroll for the fall semester and January 5 to enroll for the spring semester. Students readmitted following academic suspension are on probationary status for at least the semester of their readmission regardless of their academic performance during any interim summer periods.

Use the following guidelines when writing the petition. If possible, include independent documentation and/or references in the petition.

1. A statement indicating why the academic performance was so poor.

2. A statement indicating how the student expects to improve his/her academic performance and how he/she intends to correct the problem as stated in item 1.
3. If possible, a statement concerning the projected course of study, if a change of majors is planned.
4. If a student is returning to school after a suspension, he/she should indicate what he/she has been doing since he/she last attended Clarion.
5. Any other statements and supporting evidence thought helpful to the committee in deciding the petition.

MAXIMUM CREDIT HOUR LOAD

The normal credit hour load for undergraduate students in good academic standing is 15 to 18 credit hours per semester and 6 to 7 credit hours per five-week summer session. Students on academic probation should not attempt more than 12 to 15 credit hours per semester.

Students wishing to register for 19 to 21 credit hours during any one semester or more than 7 credit hours for a five-week summer session must have a cumulative quality point average of 3.00 or better or the written permission of the appropriate college dean. Students are required to pay for each credit over 18.

All scholastic standards noted above are subject to change by the university.

REPEAT GRADE POLICY

The student shall be permitted to repeat any and all courses as often as he/she chooses.

The latest repeat grade shall be the counting grade in the quality point average.

HONORS

Academic honors are recognized with a semester Dean's List and with the traditional honors designations of Cum Laude, Magna Cum Laude, and Summa Cum Laude at graduation.

To be included on the semester Dean's List, the student must be enrolled for a minimum of 12 credits not including credits by proficiency examinations, and achieve a semester QPA of at least a 3.50. Cum Laude

honors are awarded for a cumulative quality point average of 3.4 to 3.6; Magna Cum Laude for 3.6 to 3.8; and Summa Cum Laude for 3.8 to 4.0. In order to earn graduation honors, a student must have earned at least 32 credits at Clarion.

For information concerning honorary kinds of recognition that may be accorded by various colleges and departments, the student should inquire at the office of his/her major department and/or the office of the dean of the college in which he/she is enrolled.

HONORS PROGRAM

The Clarion University Honors Program is designed for students whose intellectual and creative interests and abilities extend beyond conventional university offerings. The program gives outstanding students the opportunity to enrich their education through special courses, self-directed study, and extracurricular involvement.

In honors courses students pursue subjects in depth and across disciplines. They interact closely with faculty members in informal settings as well as in the classroom. Honors Program lectures, concerts, travel, and recreational events contribute to an enhanced academic environment.

The Honors Program is available to qualified students enrolled in a baccalaureate degree program of studies. Entering freshmen are admitted by invitation on the basis of SAT scores, high school record, and recommendations.

Honors courses may replace general studies courses and may accompany a major in any department. To earn an honors degree, a student must complete a minimum of 21 honors credits, maintaining a quality point average of 3.5. Three of the 21 honors credits must be earned in the student's major area of study. These hours are taken as part of the student's degree program and do not represent credits beyond normal graduation requirements.

Honors Curriculum

Freshmen year

- fall Interdisciplinary communication skills course, 6 credits
- spring Humanities, 3 credits

Sophomore year

- fall Interdisciplinary social sciences course, 3 credits
- spring Interdisciplinary science/math course, 3 credits

Junior year

- spring Junior Honors Course, 3 credits
A synthesis course dealing with a major theme in depth

Senior year

- fall or spring Senior Paper/Project in major field of study, 3 credits

Honors graduates receive special recognition at the annual honors

convocation and at commencement ceremonies. Their transcripts and degree indicate that they have completed the Honors Program.

Excellent scholarships and financial aid provisions are available for students enrolled in the honors program. The Clarion University Honors Program is a member of the National Collegiate Honors Council, placing it in contact with active honors programs nationwide.

Additional information may be obtained by contacting the Honors Program Director.

ACADEMIC SUPPORT SERVICES

DR. FRANCINE MCNAIRY, DEAN

103 Carrier Administration Building

The University is committed to the academic growth and development of all students. In order to assure these goals, the University has established the Office of Academic Support Services which incorporates students and faculty development, academic advisement and academic support for students. There are five programs within the Division of Academic Support Services.

STUDENT DEVELOPMENT SERVICES

Mr. Lou Tripodi - Director

114 Egbert Hall

Student Development Services provides academic support services to students who may encounter some form of difficulty with their academic subjects and/or basic skills. Those students who are having trouble understanding basic concepts, ideas or mechanical processes can receive content tutoring in most lower division subjects. Students who are experiencing difficulty with reading comprehension, notetaking, and/or time management can receive assistance in Reading/Study Skills.

The tutorial sessions give students the opportunity to receive indepth clarification and to identify and apply specific reading/study skills required in their academic programs. Most sessions are one-to-one or small group interaction.

Instruction in reading/study skills is available through course work and individual tutoring. Areas covered by instruction and tutoring are notetaking, listening, time management, and comprehension.

GS 100 - College Reading/Study Skills is a two-credit course offered each semester. Students will be helped to identify and apply the specific reading/study skills in their academic program.

Any student may request individual evaluation and tutoring. This is especially recommended for those students having limited problems as well as for those needing long-term assistance.

EDUCATIONAL OPPORTUNITIES PROGRAM - ACT 101

Dr. Isaiah Sessoms, Director

110 Egbert Hall

Students enrolled in the Educational Opportunities-Act 101 program participate in a six-week Pre-College Summer Experience. Participants can earn up to six academic credits for courses in English and Math, and also complete seminars in Reading/Study Skills, Speech, and Personal Development. In addition, participants receive an extensive orientation to university life. During both the summer and the academic year, support services offered include financial aid counseling, individual analysis of study habits and supervised study sessions, and assistance in career planning and decision making. Finally, the Program sponsors extracurricular activities intended to enrich the student's total experience. Students accepted into this Program must meet eligibility requirements as established by the institution and the Pennsylvania State System of Higher Education.

SPECIAL SERVICES PROGRAM

Mr. Gregory Clary - Director

Davis Hall

Students admitted to the Special Services Program are provided support services which include tutoring, academic advising, and career and financial aid counseling. During the academic year, workshops and on-going services which focus on academic survival and learning-to-learn activities are offered. A reserved section of English 110 as well as reserved slots in General Studies 100 - Reading/Study Skills are also offered to program students. The Program seeks to provide physically handicapped students enrolled at the University with the support services which they may need to realize academic success. Students accepted in the Program must meet eligibility requirements established by the institution and the U.S. Department of Education.

PROJECT UPWARD BOUND

Ms. Cassandra Neely - Director

Davis Hall

As part of the University's commitment to serve the community, Clarion's Upward Bound Program is designed to generate in selected area high school students in academic skills and motivation necessary for success in college. The Program operates in two segments - the Academic Year Component and the Summer Residential Program. Support services such as tutoring, visits to postsecondary educational institutions, career and personal counseling are provided year-round. This six-week Summer Residential Program offers Program participants an opportunity to experience college life while residing on campus. Students receive intensive basic skills instruction and exposure to a variety of cultural and social activities on and off campus. Students are chosen for the program based on eligibility criteria as established by the Program and the U.S. Department of Education.

MINORITY CURRICULUM DEVELOPMENT PROGRAM

Dr. Malik Simba, Coordinator

136 Davis Hall

The Minority Curriculum Development Program is based on the philosophy that we live in a multicultural world which must be reflected in the University curricula. It emphasizes three objectives: (1) to infuse the minority experience into the regular curriculum as opposed to offering it as appendage material; (2) to expose students to the multidimensional challenges that intergroup relations present, by both expanding the students' knowledge base and by causing them to reassess their values; and (3) to develop educational outcomes within disciplines or professions that measure the students' ability to understand and/or apply relevant information that infuses the minority experience.

The Coordinator provides technical assistance to selected academic departments in the identification of appropriate courses and resources for the infusion of the Black experience in the curriculum. The coordinator also provides bibliographies and teaching strategies which include, but are not limited to, textbook suggestions, case studies, biographies, and specific articles which will support the infusion model.

UNDERGRADUATE DEGREE PROGRAMS

Clarion University offers combined academic and professional curricula leading to the undergraduate degrees of Bachelor of Arts, Bachelor of Fine Arts, Bachelor of Music, Bachelor of Science, Bachelor of Science in Business Administration, and Bachelor of Science in Education, as well as certification for teaching in the public elementary, middle, and secondary schools of the Commonwealth of Pennsylvania.

Additionally, it offers associate degree programs and a Bachelor of Science in Nursing at its Venango Campus in Oil City. See Venango Campus, pages 190-211.

COLLEGE OF ARTS AND SCIENCES

Anthropology (B.A.)	Medical Technology (B.S.)
Art (B.F.A.)	Music Marketing (B.M.)
Biology (B.A., B.S.)	Music Performance (B.M.)
Chemistry (B.A., B.S.)	Natural Sciences (B.A.)
Chemistry/Business*	Philosophy (B.A.)
Chemistry/Pre-MBA*	Physics (B.A., B.S.)
Earth Science (B.A., B.S.)	Political Science (B.A.)
Earth Science/Geology*	Psychology (B.A., B.S.)
Economics (B.A.)	Russian (B.A.)
Engineering Coop. Programs	Social Sciences (B.A.)
Engineering/Chemistry*	Sociology (B.A.)
Engineering/Mathematics*	Sociology/Anthropology (B.A.)
Engineering/Physics*	Sociology/Psychology (B.A.)
English (B.A.)	Spanish (B.A.)
French (B.A.)	Speech Communication (B.A.)
General Studies (B.S.)	Speech Communication & Theater (B.A., B.S.)
Geography (B.A., B.S.)	Theater (B.F.A.)
German (B.A.)	Theater/Acting*
History (B.A.)	Theater/Design-Technical Director*
Humanities (B.A.)	
Mathematics (B.A., B.S.)	
Mathematics/Actuarial Science*	
Mathematics/Applied*	
Mathematics/Computer Science*	

*Academic Concentrations

COLLEGE OF BUSINESS ADMINISTRATION

All candidates for the Bachelor of Science or Associate Science Degree in Business Administration are required to take a

broad program of business foundation subjects and then choose a business field of specialization in one of the following majors

Accountancy (BSBA)	Management Library
Economics (BSBA)	Science (BSBA)
Finance (BSBA)	Marketing (BSBA)
Industrial Relations (BSBA)	Office Management (BSBA)
International Business (Minor)	Real Estate (BSBA)
Management (BSBA)	Business Administration (AS)
	(see Venango Campus)

**COLLEGE OF COMMUNICATION AND
COMPUTER INFORMATION SCIENCE**

Communication (B.S.)
Computer Science (B.S.)
Computer Application and Information Systems*
Computer Science*

COLLEGE OF EDUCATION AND HUMAN SERVICES

Teacher Education

Early Childhood Education (B.S.Ed.) certification for grades N-3		
Elementary Education (B.S.Ed.) certification for grades K-6		
Elementary Education/Early Childhood Education (B.S.Ed.)		
Elementary Education/ Library Science (B.S.Ed.)		
Elementary Education/Special Education (B.S.Ed.)		
Library Science (B.S.Ed.) certification for grades K-12		
Music Education (B.S.Ed.) certification for grades K-12		
Special Education (B.S.Ed.) certification for grades K-12		
Special Education/Habilitative Sciences (B.S.Ed.)		
Speech Pathology & Audiology: Clinical (B.S.Ed.) certification for grades K-12		
Secondary Education (B.S.Ed.) certification for grades 7-12		
Biology	French	Physics
Chemistry	General Science	Russian
Communication Arts	German	Social Studies
Earth & Space Science	Mathematics	Spanish
English		

Students may plan their program to extend their certification to include Environmental Education. They may also choose the 17-hour coaching endorsement program in order to coach in Pennsylvania public schools.

Human Services

- Habilitative Sciences (B.S.)
 - Habilitative Sciences: Gerontology*
 - Habilitative Sciences: Substance Abuse*
 - Habilitative Sciences: Developmentally Disabled
- Habilitative Sciences (A.S.) - see Venango Campus
- Speech Pathology and Audiology (B.S. 5-year program leading to the M.S. degree)

*Academic Concentrations

COLLEGE OF LIBRARY SCIENCE

- Library Science (B.S.Ed.)
- Management Library Science (BSBA)

DIVISION OF NURSING

- Associate of Science in Nursing Program (A.S.N.)
- Bachelor of Science in Nursing Program (B.S.N.)
- Bachelor of Science in Nursing - RN Completion Program (B.S.N.)

FINANCIAL INFORMATION

(Subject to Change Without Notice)

I. ACTIVITY FEE

This fee, collected for all regularly enrolled students is administered through a student organization approved by the Council of Trustees. It covers the cost of athletic, social, musical, and recreational activities. Students carrying twelve semester hours or more **must** pay this fee. Students taking fewer than twelve semester hours may take advantage of the program by paying the fee. The activity fee must be paid prior to or at the time of registration. Refer to the Fee Summary section for the activity fee amount.

A. Activity Fee refunds are governed by the following policy:

Refunds are not granted on an automatic basis. To be eligible for a refund a student must officially withdraw through the Office of the Registrar, and also submit in writing a request to the Student Association Office for a refund.

Upon request, a full refund of the activity fee will be granted to students who have been dismissed from the university for academic reasons.

Partial refunds will be granted to students who have made an official withdrawal from the university based upon a percentage of the paid activity fee according to the following schedule:

PARTIAL REFUND SCHEDULE

Date of Withdrawal	Amount of Refund
Before registration day	100% refund
1st and 2nd week	80% refund
3rd and 4th week	60% refund
5th and 6th week	40% refund
After 6th week	0% refund

- B. Student teachers and internship students practicing outside a 50-mile radius of Clarion as established by the map on file at the Clarion Student Association Office will be assessed one half of the activity fee per semester.
- C. Student teachers practicing within the 50-mile radius of Clarion will pay the full activity fee.
- D. Graduate students enrolled for 12 or more semester hours credit must pay a \$25.50 activity fee each semester. For graduate students commuting outside a 50-mile radius of Clarion the fee is optional

II. BASIC FEE

The basic fee is set by the Board of Governors of the State System of Higher Education. The amount shown in the Fee Summary was correct at the time this catalog was published, but like all fees, the basic fee is subject to change without notice. Checks in the required amount should be made payable to Clarion University of Pennsylvania or C.U.P.A.

- A. See the Fee Summary section for the basic fee for Pennsylvania residents, (students taking 12 to 18 credits). Credits over 18 are at additional cost. Part-time students taking eleven (11) or fewer semester hours of credit during a semester pay the per credit charge for all credits.
- B. A student who does not have a Pennsylvania domicile is classified as a non-resident. Domicile is defined as the place where one intends to and does in fact permanently reside. The amounts for the activity fee, room and meal charges and cost of books and supplies are the same as for students who are Pennsylvania residents.

Determination of Pennsylvania domicile is made on the basis of documentary evidence, statements from disinterested persons, and the presumptions set forth below:

1. Continuous residence in Pennsylvania for a period of 12 months prior to initial registration creates a presumption of domicile.
2. A person attempting to establish domicile must have citizenship or proof of intention to become a citizen or must have been admitted to the United States on an Immigrant Visa.
3. A minor is presumed to have the domicile of parent(s) or a guardian, as is a student who is claimed as a dependent on the parent(s) federal income tax return.
4. A member of the Armed Forces who was domiciled in Pennsylvania immediately preceding entry into government service and who has continuously maintained Pennsylvania as a legal residence, will be presumed to have a Pennsylvania domicile.
5. A student receiving a scholarship or grant dependent upon domicile in a state other than Pennsylvania is not domiciled in Pennsylvania.

Examples of factors which may provide convincing documentary evidence include purchase or lease of a permanent independent residence, payment of appropriate state and local taxes, transfer of bank accounts, stock, automobile, and other registered property to Pennsylvania, driver's license, agreement for permanent full time employment, membership in organizations, voter's registration, statement of intention to reside indefinitely in Pennsylvania, statement from parent(s) or guardian setting forth facts to establish a minor's financial independence and separate residence.

A student may challenge residency classification by filing a written petition with the Assistant Vice President for Administration, 218 Carrier Hall.

- C. Basic Fee for non-Pennsylvania residents for each semester amounts to approximately 80% more than the Basic Fee for Pennsylvania residents.
- D. Summer School Fees
Both Pennsylvania and non-Pennsylvania residents pay the Pennsylvania resident rate per semester hour during summer sessions.

For meals and room the charge is adjusted on the basis of university costs and is estimated at \$350 per five-week session. Books and supplies are estimated at \$50.00 per five-week session.

- III. **Room Fee** (Rates given in the Fee Summary are for university residence halls. Private residence hall charges may vary. University charges will be adjusted to reflect changes in the cost of food and utilities.)
 - A. For double occupancy of a furnished room, the charge will be as shown in the Fee Summary. No reduction shall be allowed for absences from the University.
 - B. A supplemental charge of \$100.00 shall be imposed in situations where students choose to occupy a regular double room on a single basis. A limited number of single rooms is available.
 - C. Students are responsible for damages, breakage, loss or delayed return of university property. The charges shall be equal to the extent of the loss. Students are also collectively responsible for damages in common areas of residence halls.
 - D. The rental contract for university residence halls shall be for the semester, mid-term graduates of student teachers excluded.

IV. **FOOD SERVICE CHARGES**

The charges for the full meal plan (20 meals per week) are as shown in the Fee Summary. Partial meal plans (lunch only, or lunch and dinner, five days per week) are available for students who do not live in University residence halls. Resident students must obtain the full meal plan.

V. **MISCELLANEOUS FEES**

- A. Deposits. Residence Hall students are required to make a non-refundable deposit of \$75.00 to reserve a room for the fall semester. Payment must be made by certified check or money order. Information concerning this deposit will be received from the Office of the Vice President of Student Affairs. Application for admission as either freshman or transfer student must be accompanied by a \$15.00 fee to cover the cost of processing, interviewing, and admission. The fee will not be credited to the student's account as part of payment of basic, housing, or other fees. An additional fee of \$50.00 must be paid upon receipt of notice of approval of application. This \$50.00 fee is not refundable, but will be applied to the student's basic fee upon registration. Certified check or money orders for these amounts must be made payable to Clarion University of Pennsylvania. Please do not mail cash.

- B. Late Fee.
1. Students, except off-campus cooperative or intern placements, who were regularly enrolled during a pre-registration period, who failed to pre-register, and who later registered for the next succeeding semester, shall be charged a late fee of \$25.00.
 2. Students who were not regularly enrolled during the immediately preceding pre-registration period who did not complete their registration and/or pay their fees in full as of the established due date shall be charged a late fee of \$25.00.
- C. Transcript Fee. One copy of a transcript of credits earned at Clarion will be issued free of charge. A charge of \$3.00 is made for each subsequent transcript. Persons desiring to have their credits transferred to another institution should give the name and address of such institution. Transcripts will not be issued to anyone who has unpaid bills, library fines, or damage fees on his/her account.
- D. Educational Services Fee. An Educational Service Fee is assessed at the rate shown in the Fee Summary. This fee is placed in a restricted account and is used by the University to upgrade instructional equipment, improve library holdings, and for other instructional support services.
- E. Student Community Building Fee. This fee is mandated by State Law to retire the general obligation bonds for the Reimer Student Community Building. For part-time students, the fee is pro-rated. A graduate student taking nine (9) or more credits is considered full-time.
- F. Health Center Fees. The fee shown in the Fee Summary is for all full-time students. Exempt from the fee are students who are assigned to an intern, student teaching or similar program outside a 50-mile radius of Clarion and who are not scheduled for any classes or student activities on the Clarion Campus. Reasonable charges for dispensed prescription medication and laboratory tests ordered by the Health Center will be billed directly to the student. Students have the privilege of employing their own physician at personal expense if they desire. If in the case of serious illness or injury, the university physician or nurse believes that transportation is necessary to the infirmary or to a local or home hospital, such transportation will be provided by ambulance, but the expense must be borne by the student.
- A charge will be assessed to students who do not have a food contract at Chandler Dining Hall to cover the cost of meals while the student is in the infirmary. The charge will be at the transient meal rate.
- G. Clinical Appraisal Fee. A \$20.00 fee is charged for each clinical appraisal conducted by the Speech and Hearing Clinic.
- H. Nursery School Fee. The enrollment charge is \$100.00 for each child per semester; for part of a semester, \$1.50 per day for each day enrolled with the total of such daily charges not to exceed \$100.00.
- I. Placement Registration Fee. A fee of \$10.00 is charged for placement registration.

VI. APPLIED MUSIC FEES

Students who enroll in one or more Applied Music courses are required to pay a fee of \$40.00. This fee must be paid each semester in which Applied Music courses are scheduled.

VII. PAYMENT OF FEES

ALL FEES MUST BE PAID IN ADVANCE AND NO STUDENT WHO HAS ANY UNPAID CHARGES SHALL BE ALLOWED TO ENROLL, GRADUATE, OR RECEIVE A TRANSCRIPT OF RECORD. THE CHECK FOR FEES SHOULD BE MADE PAYABLE TO "CLARION UNIVERSITY OF PENNSYLVANIA" OR "CUPA."

When a check is presented covering fees, the student is responsible to see that funds are available when the check is presented for payment at the bank. If an uncollectible check is returned by the bank, the Business Office Return Check Recovery Station will notify the student that the check is uncollectible. The student will then be billed for the original amount plus a \$25.00 late registration fee, and a \$10.00 cost of handling fee for the uncollectible check. These charges must be paid by certified check or money order within 10 days. Failure to pay the charges will result in suspensions from the university.

VIII. REFUNDS

Students may be eligible for a partial refund on the basic fee and room fee when they withdraw from the university. A student eligible for a refund must officially withdraw through the Office of the Registrar and also submit a written request for a refund to the Business Office.

For refund purposes, each "week" will be a university work week and will end on Friday at the close of university business hours. The first week will end on the first Friday following the start of classes.

The refund schedule will also apply to all part-time students reducing their credit hour load.

Except for a minimum forfeit of advanced deposits, refund for the room fee and basic fee will be based on the following schedule:

PARTIAL REFUND SCHEDULE

Date of Withdrawal	Amount of Refund
1st and 2nd Week	80% Refund
3rd Week	70% Refund
4th Week	60% Refund
5th Week	50% Refund
After 5th Week	No Refund

Students withdrawing prior to the start of the first class day of the semester will be entitled to consideration for a 100% refund. A student may be eligible for consideration for a meal ticket refund on a pro-rata basis after returning his/her meal ticket to the Business Office.

There will not be any refund for the late fee, the Student Community Building Fee, Health Center fee, Placement Registration fee, or Educational Services Fee.

FIVE-WEEK SUMMER SESSIONS

1st Week	60% Refund
2nd Week	40% Refund
After 2nd Week	No Refund

All basic fees, miscellaneous fees, room fees, meal charges, and activity fees are due and payable on a full semester basis upon registration. The university does not defer payment except in instances where financial aid has been approved prior to registration. Students who cannot pay all charges in full at registration should arrange a loan at their bank. A student whose educational expenses are being partially paid by a National Direct Student Loan, Basic Educational Opportunity Grant, or Pennsylvania Higher Education Assistance Agency Scholarship will be required to pay the balance of the charges due in order to complete registration and avoid the \$25.00 late registration fee. The university does not assume responsibility for charges by privately operated residence or rooming facilities.

SUMMARY OF FEE CHARGES PER SEMESTER

(Pennsylvania Residents)

Subject to Change Without Notice

(Does Not Include Activity Fee)

COMMUTING STUDENTS

Basic -- 12 to 18 Undergraduates Credits or 9 to 15 Graduate Credits	\$800.
Health Center Fee	25.
Educational Services Fee	10.
Student Comm. Bldg. Fee	10.
Activity Fee (Undergraduate rate shown)	51.
TOTAL	\$896.

RESIDENT STUDENTS*

Basic -- 12 to 18 Undergraduate Credits or 9 to 15 Graduate Credits	\$800.
Health Center Fee	25.
Educational Services Fee	10.
Student Comm. Bldg. Fee	10.
Room and Meals	1040.
Activity Fee (Undergraduate rate shown)	51.
TOTAL	\$1936.

*Private residence hall charges may vary.

MEAL STUDENTS ONLY

Basic -- 12 to 18 Undergraduate Credits or	
9 to 15 Graduate Credits	\$800.
Health Center Fee	25.
Educational Services Fee	10.
Student Comm. Bldg. Fee	10.
Meals (Plan A)	460.
Activity Fee (Undergraduate rate shown)	51.
TOTAL	\$1286.

EXTRA CREDITS

Per credit (undergraduate)	\$68.
Per credit (graduate)	\$89.

IMPORTANT: All fees are listed at the rate in effect at the time this catalog was printed. All fees are subject to change without notice and students are advised to contact the Office of Student Accounts for current fee information or to refer to the fee payment information which is published separately each semester.

FINANCIAL ASSISTANCE

Mr. Kenneth Grugel, M.A., Director

Financial assistance is available to students in the form of scholarships, grants, loans, and employment. Detailed information and necessary application forms may be secured from the Office of Financial Aid. Since the determination of eligibility is based on an analysis of a current Needs Analysis Application, students are encouraged to file a Pennsylvania State Grant/Federal Student Aid Application and designate Clarion University to receive a copy of that form. These applications are available from Pennsylvania high schools or directly from the Office of Financial Aid at Clarion University of Pennsylvania.

SCHOLARSHIPS, GRANTS, AND LOANS

PENNSYLVANIA AND FEDERAL GRANTS

PENNSYLVANIA HIGHER EDUCATION ASSISTANCE AGENCY GRANTS. -- The determination of recipients of these grants is made by the Agency. The grants vary in amount and are based on the financial need of Pennsylvania students. Application forms may be secured from the Agency, high school guidance counselors, or Clarion University of Pennsylvania.

PELL GRANTS. -- Federal grants available to undergraduate students. Recipients determined by the U.S. Department of Education based on financial needs. The PHEAA application form can also be utilized as your PELL grant application form.

SUPPLEMENTAL EDUCATIONAL OPPORTUNITY GRANTS. -- Federal grants available to students with financial need as defined by the U.S. Department of Education and awarded by the Financial Aid Office at Clarion University of Pennsylvania. These awards are determined on an individual basis by the Office of Financial Aid at Clarion University of Pennsylvania.

LOANS

NATIONAL DIRECT STUDENT LOAN PROGRAM -- This program provides for loans to students who have a demonstrated need for financial assistance and who are in good academic standing.

To be eligible for consideration for a loan, a student must complete an application form, have a current Needs Analysis Form on file in the Office of Financial Aid, be a citizen of the United States or have declared his/her intention to obtain citizenship, and be enrolled or accepted for enrollment as a student.

These loans, which are non-interest bearing while a student is enrolled, are available to a maximum of \$3,000.00 for the first two years with a limit of \$6,000.00 for the bachelor's degree. Repayment of the loan may extend over a ten-year period beginning six months after withdrawal or graduation from Clarion. Repayments are to be made on a quarterly basis with interest accruing at the rate of five percent per year.

In specified teaching situations, as much as fifteen percent of the loan may be canceled for each year of teaching. The borrower's obligation to repay the loan is canceled in the event of death or permanent and total disability.

GUARANTEED STUDENT LOAN PROGRAM -- Loans to a maximum of \$2,500.00 per academic year to a limit of \$12,500.00 in five years of students in good academic standing are generally available from local banks and savings and loan associations. Guaranteed Student Loans are based on need which must be demonstrated through an approved need analysis system by families whose combined income exceeds \$30,000.00. Application forms and detailed information may be secured from the financial institution from which a loan will be requested. An 8 1/2 % rate of interest for new borrowers begins accruing after graduation or withdrawal, and repayment may extend over a ten-year period.

PARENT LOAN FOR UNDERGRADUATE STUDENTS (PLUS) -- AUXILIARY LOAN TO ASSIST STUDENTS (ALAS) -- Loans available to parents of CUP students or independent students of up to \$3,000.00 in an academic year. Not based on financial need but may not exceed the cost of instruction less other forms of assistance. Repayment begins sixty days after receiving the loan and has a 12 1/2 % rate of interest. Applications are available at participating lending institutions.

PHEAA ALTERNATIVE LOANS -- PHEAA/Higher Education Loan Plan (PHEAA/HELP) -- These loans are designed to meet the needs of students and families who can't borrow sufficient funds through the GSL Program to meet their educational costs. This loan package combines your eligibility in one GSL program with a privately insured Supplemental Loan. Eligibility for the Supplemental Loan is based on the need for funds as certified by the school and the creditworthiness of

the applicant. A co-signer will be required for each student applicant. Currently the PHEAA/HELP loan can provide up to \$10,000 annually to meet costs of education. Undergraduate and graduate level applications for PHEAA/HELP loans will be available through postsecondary institutions and participating lenders. HELP Loans are mailed directly to the Office of Financial Aid at Clarion University.

CLARION UNIVERSITY FOUNDATION REVOLVING LOAN FUND --
The Foundation has established a loan fund, for educational purposes only, which is available to full-time students in good standing. Loans may be granted to a maximum of \$200. The loans are interest-free for 60 days. Thereafter, a \$10.00 late fee is imposed. Application forms may be secured from the Foundation Office.

ALEXANDER HREACHMACK REVOLVING LOAN FUND --
EMERGENCY LOAN -- Similar in purpose and administration to the Foundation Loan. Hreachmack Loans have a maximum value of \$100.00, are interest-free for sixty days, and have a \$25.00 late fee. Loans are due and payable prior to graduation or the end of each semester. Applications are available in the Office of Financial Aid.

Loan Repayment Chart (Payback Period = 10 years)		
Amount Borrowed	Approximate Monthly Repayment for:	
	NDSL (5% interest)	GSL (8% interest)
\$ 5,000	\$ 53.03	\$ 60.67
7,000	74.25	84.93
10,000	106.07	121.33
11,000	116.67	-----
12,000	127.28	-----
15,000	-----	182.00

EMPLOYMENT

Employment on a part-time basis is available to the extent that funds are provided by the federal government and the Commonwealth of Pennsylvania. The assignment of students to part-time campus positions is generally based on financial need; however, it should be recognized that such employment will not be sufficient to meet the total expenses of attending Clarion.

FEDERAL WORK-STUDY PROGRAM -- The university participates in the Federal Work-Study Program which permits eligible students to work a maximum of 10 hours per week while classes are in session. Eligibility requirements for employment include United States citizenship, demonstrated financial need as determined by a current Needs Analysis Form, and satisfactory academic progress.

STATE EMPLOYMENT PROGRAM -- Part-time positions are available under this program to students who are maintaining satisfactory academic progress. Most student positions are limited to 10 hours of employment per week.

CONDITIONS WHICH ACCOMPANY FINANCIAL AID

In order to continue receiving financial aid following initial enrollment at Clarion University of Pennsylvania, students must meet certain conditions each year. They must be enrolled for at least half-time and must reapply for aid each year using the appropriate forms as mentioned above. Baccalaureate students may receive assistance from most federal, Title IV, and state aid programs for each of their undergraduate years providing they maintain "normal academic progress." This means that undergraduate students must successfully complete a minimum of 24 semester hours by the end of each academic year, including summer, before they can be granted assistance for their next school year.

Part-time undergraduate students must successfully complete a minimum of 12 semester hours during each academic year, including summer, to continue receiving any financial assistance.

Graduate students must successfully complete 18 semester hours by the end of each academic year, including summer, before they can be granted assistance for their next school year.

Part-time graduate students must successfully complete 9 semester hours during each academic year, including summer, to continue receiving any financial assistance.

For financial aid purposes an undergraduate student becomes a sophomore with 24 credits, a junior with 48, and a senior with 72. These credit levels for class standing apply to financial aid only and not to other academic considerations. Students should also understand that completing 24 semester hours per year will not qualify them for graduation in four years but rather in 11 semesters. Providing that a student has a 2.0 QPA or is officially permitted to attend Clarion, he/she may continue to receive financial assistance as long as the 24 semester hour progress requirement is met.

APPEAL PROCEDURE

A student denied financial aid for any reason may appeal the denial as follows:

1. Write to the Office of Financial Aid, Clarion University of Pennsylvania, Clarion, PA 16214, noting the denial and stating the

reasons why financial aid should not be denied. Example: A student may be denied aid because it appears he/she has fewer than 24 credits for the year. Perhaps during the summer at another institution the student has earned, for transfer to Clarion, credits which fulfill the normal progress requirement but about which the University has not been informed. The student may present the appeal in person at the Office of Financial Aid in Egbert Hall instead of writing.

2. The Office of Financial Aid will review the denial in terms of information provided by the student.
3. Following the review the Office of Financial Aid will report back to the student concerning the appeal.
4. If the student questions the decision of the Office of Financial Aid an appeal may be made to the Vice President for Student Affairs for a final determination.

REFUND POLICY

Students receiving financial assistance from Clarion University are subject to the same refund policies as those who are not aid recipients. It should be noted that using any part of a student's financial assistance for a portion of a semester is considered as using that entire semester award for eligibility purposes, i.e. withdrawal after 2 weeks of classes will entitle the student to an 80% refund and will utilize 20% of assistance; however, one semester of eligibility in those aid programs has been used. This may effect a student's academic progress eligibility for the following semester.

GENERAL UNIVERSITY SCHOLARSHIPS

ART--MUSIC--ATHLETICS

Clarence & Janet Lesser Scholarships: The trust fund provides 25-30 awards varying in amount from \$200 to \$500. Awards may be renewed subject to the availability of funds at the discretion of the selection committee. Talented candidates, both men and women, will receive preferential consideration for awards to be made in the areas of art, music, and intercollegiate athletics. High school students who have exhibited high interest and achievement are urged to apply. Criteria for selection are talent, academic promise and leadership potential. Application should be made in the spring. The awards are paid each semester as a tuition credit. Contact the Dean of Graduate Studies for additional information.

ATHLETICS

Athletic Academic Scholarships: Two awards, \$100 each, presented to the senior male and female athlete with the highest QPA. Eligible students must participate on any athletic team. Recipients are selected by the Physical Education Department. Payment is made by the Foundation as a tuition credit. See the Athletic Director for further information.

T. A. Carnahan Golf Award: A \$150 award (\$75 per semester) presented to a member of the golf team for the purchase of textbooks. Application should be made to Mr. Mel Mitchell in the Mathematics Department at the beginning of each semester. Selection is based on academic record, golf team performance and participation in extra-curricular activities. Payment is made by the Foundation directly to the bookstore.

W. S. Tippin Scholarships: The Athletic Scholarship Fund at Clarion is administered by the Athletic Director. Scholarships are available to both men and women who compete on intercollegiate teams at Clarion. Interested students should have their high school coach contact the respective coach at Clarion for additional information.

FOREIGN STUDENT

Bishop's High School Alumni Scholarship: Scholarship made available by alumnus of Bishop's High School, Tobago, West Indies in the amount of \$1000 per semester. Eligible applicants must be a graduate of Bishop High School attending or planning to attend Clarion University and be enrolled as a full-time student. Application should be made to the Foundation by letter. Deadlines for application are November 1 for spring semester and April 1 for fall semester.

Sitzman Foreign Student Scholarship Award: An annual award to up to \$500 will be presented to the outstanding foreign student of the year based on services and activities performed at the University, the Clarion International Association, civic and professional groups, and other activities of academic and/or cultural enrichment. Students receiving this award are selected by a faculty committee. Contact the Director of International Programs for more information.

MUSIC/BAND

Band Scholarships: Scholarships are available to students who participate in the Marching and Symphonic Bands. Criteria for selection are musicianship, instrumentation needs, academic promise, and leadership potential. Students are selected by the Conductor of Bands. The annual awards may be renewed subject to availability of funds. The number and amount may vary each year. For additional information, contact Dr. Stanley Michalski, Conductor of Bands.

ROTC

Army Reserve Officer's Training Corp Scholarships: The U.S. Army offers two, three and four year scholarships to students enrolled in ROTC program at Clarion University. Army ROTC scholarships pay for university tuition, textbooks, activity fee, laboratory fees and other academic expenses plus a subsistence allowance. Applicants compete nationally with other ROTC students. Should a scholarship be granted, the student is required to take a minimum of one semester of a foreign language and incurs a four-year active duty military obligation as a commissioned officer. Contact the Military Science Department for further details.

George C. Marshall Super Cadet Award: Award presented to the top cadet from each of the Universities in the nation which has an Army ROTC program. The cadet must demonstrate leadership and academic excellence. Contact the Military Science Department for additional information.

UNIVERSITY WIDE

APSCUF: Two \$350 scholarships are awarded each spring by the Association of Pennsylvania State College and University Faculties at Clarion University. Eligible candidates must have completed 60 credits at Clarion. Other selection criteria include academic record, contribution to the university and participation in extra-curricular activities. The award is paid directly to the student but must be used to cover educational expenses. Contact the APSCUF office for further information.

Clarion University Alumni Association Scholarships: Ten \$300 tuition credit awards made annually by the Alumni Association through the Foundation. Eligible candidates should have completed at least 16 credits at Clarion. Two scholarships are awarded to children of university graduates; however, any student may apply for the other eight scholarships. Applications are available in September and awards are made during October. Recipients are selected by a committee of the Alumni Association. Contact Mr. Ron Wilshire, Director of Alumni Affairs, for additional information.

Clarion University Women's Club Scholarship: A \$200 annual scholarship will be available in the near future through the efforts of the Clarion University Women's Club. Further information may be obtained from the Organization's President.

Mary/Martha Colegrove Educational Scholarships: The Foundation offers the Colegrove Educational Fund Scholarships. The awards are made to two women from McKean County attending Clarion University in the amount of \$3500 each and payable at the rate of \$875 per person per year. The recipient will continue to receive the award during the second, third, and fourth years if she is enrolled as a full-time student and maintains a QPA of 3.0. For additional information, contact the Dean of Admissions or McKean County High Schools Guidance Counselors.

Foundation Departmental Scholarships: Annually, the Clarion University Foundation makes available 32 \$300 scholarships: one to each academic department (27), two to Venango Campus, three to staff scholarship committee (for dependents of university staff employees). Eligible students must be of sophomore or junior standing as award is a tuition credit during the following semester. Criteria for selection include academic excellence and service to the respective department. Application is made during the spring semester to individual department committees. Contact department chairperson for further information.

James Gemmell Leadership Award: A \$100 cash award presented to a graduating senior who is selected by the members of the Student Affairs staff on the basis of leadership qualities. The award is made each spring through the Foundation.

Walter L. Harf Scholarship: The Admissions Office, through the Foundation, awards five \$1200 scholarships annually to incoming freshmen. Applicants must have applied and been accepted to the University for the upcoming academic year. Consideration will be given to those students ranked in the top 10% of their graduating class with SAT scores in excess of 1000, who have made outstanding accomplishments and significant contributions through involvement in extra-curricular activities. Two awards are reserved for minority students. Each award will be made in four \$300 increments over a four year period for a total of \$1200, providing that the student maintains a QPA of 3.0. Interested students complying with the above criteria are encouraged to submit a letter of application along with three letters of recommendation to the Dean of Admissions.

Clara Louise Kiser Memorial Fund Scholarship: Scholarships, not limited in number or amount, for students graduating from the Clarion Area School District. The scholarships are awarded according to financial need to students planning to attend vocational school or college. Instructions for completing the application process may be obtained from Mr. Stephen Kosak, Box 374, Oil City, PA 16301. Deadline for submissions of application is April 15.

Margaret and Irvin Lesher Foundation Scholarships: Scholarships, not limited in number and not specified in amount, granted only to graduates of Union Joint High School. Eligible students may receive the award for up to four years providing they maintain a QPA of 2.5 or above. Recipients are selected on the basis of financial need and academic record. Instructions for complete application process may be obtained from Mr. Stephen Kosak, Box 374, Oil City, PA 16301. Deadline for submission of application is April 15.

Dr. Donald Nair -- Phi Eta Sigma National Honor Society Scholarship (Freshmen): The Clarion University chapter of Phi Sigma, a member of the Association of College Honor Societies, offers one \$300 cash award each year. Candidates must be a member of the Honor Society which requires a minimum 3.5 QPA after one or two semesters. Selection is made by the Career Counseling Center and is based on academic record and participation in extra-curricular activities. Contact Dr. Donald Nair, Phi Eta Sigma faculty advisor.

Presidential Scholarships: Five \$1000 awards are made annually to incoming freshmen and transfer students. Two of the scholarships are awarded to minority students. Decisions are made by a committee of University Deans and the Director of Admissions with special emphasis placed on outstanding academic achievement, demonstrated leadership qualities, and involvement in extra-curricular activities. Recipients of the Presidential Scholarships will be reviewed annually for consideration of renewal of the award. The scholarships are paid as a tuition credit each semester by the Foundation. Completed applications which include an essay and three letters of recommendation must be submitted before April 30 to the Dean of Admissions.

State Board of Governors Scholarships: Twelve awards made each semester to minority students. Candidates must possess a minimum 3.0 QPA. This tuition-based scholarship may vary in amount, depending upon the student's need. Selection criteria include academic record, contribution to the university and participation in extra-curricular activities. Applications can be obtained in the Admissions Office. Payment is made as a tuition credit by the State Board of Governors.

Dana S. Still Scholarships: A number of \$200 scholarships will be awarded annually to incoming students. Eligibility will be based upon financial need. Interested students should contact the Dean of Admissions for further information.

Frank & Clara Williams Scholarship: Scholarships, not limited in number and not specified in amount, granted to Venango County residents. Eligible students must be full-time freshmen or sophomores. Selection is made based upon financial need and academic record. Instructions for complete application process may be obtained from Mr. Stephen Kosak, Box 374, Oil City, PA 16301. Deadline for submission of application is April 15.

Wein Scholarship: Scholarship awarded on the basis of academic achievement to graduating seniors of Clarion Area High School. Further information as well as instructions for completing the application process may be obtained from Mr. Stephen Kosak, Box 374, Oil City, PA 16301.

COLLEGE OF ARTS AND SCIENCES

BIOLOGY

Association of Pennsylvania State College and University Biologists Award: Award given to one senior biology major at each of the state university campuses for outstanding scholarship and contributions to the department and the university. For additional information, contact the Biology Department Chairperson.

Biology Department Fund Scholarships: Two \$300 scholarships awarded to biology or medical technology students who are currently freshmen or sophomores. Students should apply in the spring to the Biology Department scholarship committee. The scholarship committee makes a recommendation to the department based upon academic record, contribution to the department and or university and participation in extra-curricular activities. Scholarships are paid direct as tuition credit by the Biology Scholarship & Research Fund of the Foundation.

Kim Rutherford Memorial Scholarship: A \$300 tuition credit scholarship awarded each year to biology majors of freshmen or sophomore standing. Recipient is selected upon the following criteria: academic excellence, participation in extra-curricular activities, service to the Biology Department and Clarion University, financial need and the student's goals in biology. Application should be made in the spring to the Biology Department. Final selection is made by the department upon recommendation of the department's scholarship committee. Payment is made through the Kim Rutherford Scholarship Fund of the Foundation.

Scholars in Education Award: PHEAA (Pennsylvania Higher Education Assistance Agency) offers over 100 scholarships each year to students in math or science who are committed to teaching secondary math or science in a Pennsylvania school. Undergraduates must have a QPA of at least 3.0 in math or science. High school seniors must have SAT scores of over 1000, a 3.0 average in math and science and rank in the top 1-5th of their high school class. Available only to Pennsylvania residents, this scholarship ranges in amount from \$1500 up to one-half of tuition at eligible schools. Contact Dr. Ken Mechling, Biology Department, for further information. Application should be made prior to April 1. Payment is made by PHEAA each semester to the university as credit towards tuition and fees.

CHEMISTRY

American Institute of Chemists Award: An award presented each year to an outstanding senior chemistry major. The recipient is selected on the basis of academic achievement by the department members. Contact the Chemistry Department Chairperson for further information.

CRC Press - Freshman Achievement Award: An award presented each year to a freshman chemistry major. The department selects the recipient on the basis of academic excellence. For further information, contact the Chemistry Department Chairperson.

Chemistry Department Competitive Award: An award presented each year to a senior chemistry major. Selection is made by the department based upon the results of a competitive examination. Contact the Chemistry Department Chairperson for additional information.

Heagy Memorial Scholarship: This \$200 scholarship is awarded annually to a chemistry major of at least sophomore standing. The candidate is selected by the Chemistry Department on the basis of academic record. The scholarship is paid by the Foundation as a tuition credit. For more details, contact the Chemistry Department Chairperson.

Outstanding Senior Award: A \$100 cash award to a senior chemistry major, sponsored by the Society for Analytical Chemists of Pittsburgh. Recipient is selected by the department on the basis of academic record and contribution to the department. Contact the Chemistry Department Chairperson for further details.

Western Pennsylvania Water Company Scholarship: A \$700 tuition credit scholarship made available by the Western Pennsylvania Water Company through the Clarion University Foundation. The recipient must be a chemistry major of at least junior standing and is selected by the department on the basis of academic record. For further details contact the Chemistry Department Chairperson.

ENGLISH

Joseph F. and Susannah Centorcelli Scholarship: This scholarship fund was established by Mr. Joseph F. Centorcelli in memory of his wife, through the Clarion University Foundation. Two recipients are selected each year, one in English and one in Speech Communication Theatre, to receive a \$350 scholarship. Applicants must be of at least sophomore standing and have a 3.0 QPA. English candidates must submit a narrative in which they discuss academic interests and future goals. Also, they will submit samples of current critical and creative writing. Application should be made in the spring semester to the Chairperson, English Department.

English Association of Pennsylvania State Universities Award: An award sponsored by the EAPSU providing paid expenses to their annual conference. Student must be an English Communication Arts major of at least sophomore standing. Also, the candidate must have a 3.0 minimum QPA. Selection is based upon contribution to the department, academic record, and participation in extra-curricular activities. For additional information, contact the English Department Chairperson.

Max Nemmer Award: A \$50 cash award presented to the outstanding senior majoring in English Communication Arts. The annual award is given based upon academic record, contribution to the department and involvement in extra-curricular activities. Selection is made by the English Department and paid through the Clarion University Foundation. Contact the English Department Chairperson for additional information.

GEOGRAPHY/EARTH SCIENCE

Tracy Buckwalter Geology Award: Award given annually to a senior earth science major who has specialized in geology. Contact the Geography Earth Science Department Chairperson for more information.

Norman Humphrey Geography/Earth Science Award: Award given annually to a senior who is a geography/earth science major. The award is based upon academic excellence and professional growth. See the Geography Earth Science Department Chairperson for additional information.

HISTORY

Gilbert Hill Award: Annually, a gift is presented to the outstanding senior history major by the department. Recipient is nominated by the History Department and is selected on the basis of academic record, contribution to the department and participation in extra-curricular activities.

HISTORY/SOCIAL SCIENCE

Frank Campbell Award: Annually a gift is presented to the outstanding senior with a major in educational social science and concentration in history. Awardee is nominated by the History Department and selected on the basis of academic record, contribution to the department and participation in extra-curricular activities.

MATHEMATICS

Mathematical Association of America Award: Membership in the Mathematical Association of America is presented to an outstanding senior math major. Selection is made by the Math Department and evaluation is based equally on three criteria: QPA in math, interest in going to graduate school or teaching mathematics, and faculty opinions.

Pi Mu Epsilon Honorary Award: Membership into Pi Mu Epsilon is awarded each year to an outstanding student. Awardee selection is based upon academic record and completion of at least four upper division math courses. See the Math Department Chairperson for further information.

MODERN LANGUAGES

Canadian Consul Award in French: Award of books presented to an outstanding student of sophomore or higher standing who has demonstrated excellent skills in French. Selection is made by the Modern Language Department faculty on the basis of the student's academic record. See Modern Language Department Chairperson for further details.

Consul General's Award for Achievement in German: Award of books presented to an outstanding student of sophomore or higher standing who has demonstrated excellent skills in German. Selection is made by the Modern Language Department faculty on the basis of the student's academic record. See Modern Language Department Chairperson for further details.

Award for Excellence in Russian: Award of books presented to an outstanding student of sophomore or higher standing who has demonstrated excellent skills in Russian. Selection is made by the Modern Language Department faculty on the basis of the student's academic record. See Modern Language Department Chairperson for further details.

Award for Excellence in Spanish: Award of books presented to an outstanding student of sophomore or higher standing who has demonstrated excellent skills in Spanish. Selection is made by the Modern Language Department faculty on the basis of the student's academic record. See Modern Language Department Chairperson for further details.

MUSIC

String Scholarship: Two \$500 awards made each year to full-time students majoring in music. Auditions are required and selection is based upon service to the department orchestra and string ensemble. For additional information, contact Dr. Lassowsky or Mr. Berberian of the Music Department.

Band Scholarships: Scholarships are available to students who participate in the Marching and Symphonic Bands. Criteria for selection are musicianship, instrumentation needs, academic promise, and leadership potential. Students are selected by the Conductor of Bands. The annual awards may be renewed subject to the availability of funds. The number and amount may vary each year. For additional information, contact Dr. Stanley Michalski, Conductor of Bands.

PHYSICS

Paul Shank Award for Excellence in Physics: A \$300 award established to honor a former physics professor. The scholarship is awarded based on grades in physics, math, and computer science. Award is presented to a junior physics major. In addition, the recipient's name is inscribed on a plaque in the department office. See the Physics Department Chairperson for further details.

PSYCHOLOGY

Three \$75 cash awards given annually to students majoring in psychology. Selection is based upon the following criteria: academic record and contribution to the psychology department. Payment is made through the Psychology Scholarship & Research Fund of the Foundation. See members of the Psychology Department for more information.

SPEECH COMMUNICATION AND THEATRE

Alpha Psi Omega/Allan Kroh Memorial: A cash award (varying in amount) presented each year for outstanding theatre activities and contributions. Award is made in the spring by the Alpha Psi Omega Honorary Fraternity. Contact the fraternity advisor for further information.

Joseph F. and Susannah Centorcelli Scholarship: This scholarship fund was established by Mr. Joseph F. Centorcelli in memory of his wife, through the Clarion University Foundation. Two recipients are selected each year, one in English and one in Speech Communication/Theatre, to receive a \$350 scholarship. Applicants must be of at least sophomore standing and have a 3.0 QPQ. SCT candidates will be invited to appear for an interview and are required to demonstrate their awareness of citizenship responsibilities and hope for their career. Application should be made in the spring semester to the Chairperson, SCT Department.

Daniel Preuh's Memorial for Musical Comedy: A \$100 cash award presented each year to an outstanding performer in the musical production. Application should be made to the director of the musical. Selection is made following the production by a scholarship committee. Payment is made by the Foundation.

Daniel Preuh's Memorial for Talent in Theatre: A \$150 cash award presented each year to a freshman demonstrating potential for success in the theatre. Selection is based upon audition. Further information can be obtained from the Speech Communication and Theatre Department.

Silver Fox Award for Comedy: A cash award (varying in amount) made available for the outstanding performance in the university's comedy production. Application should be made to the director of the production. Selection is made following the performance by a department committee. Payment is made by the Foundation.

Mary Sterrett & Elbert Raymond Moses, Jr. Award: A cash award (varying in amount) made to a graduating senior SCT major who plans to pursue graduate study. The department selects the recipient on the basis of academic excellence, contribution to the department and to the university, participation in extra-curricular activities and financial need. Application should be made to the SCT Department Chairperson each spring.

FOREIGN-LANGUAGE, ENGLISH, HISTORY, PHILOSOPHY

Eileen M. Thornton Humanities Award: A cash award presented to a graduating senior majoring in the humanities. Recipient is selected by a committee of the above mentioned departments. Selection is based on academic excellence and participation in extra-curricular activities.

MATH, PHYSICS, CHEMISTRY, GEOGRAPHY, EARTH SCIENCE, BIOLOGY

William & Elizabeth Hart Scholarship: This scholarship was established to honor former chemistry professor, Dr. William Hart. Currently, two scholarships are awarded in the amount of current expenses for tuition, room, board, and some miscellaneous fees, including books. Applicants must major in mathematics, physics, chemistry, geography/earth science, or biology and have completed 45 credits. They must have a QPA of 3.0 overall and 3.3 in math and science coursework. Selection shall be made by a competitive examination, testing the student's ability in mathematics and English. Application deadline is February. Contact a member of the scholarship committee for additional information. Dr. Wollaston (Chemistry); Dr. Leavy (Geography); Mr. Donachy (Biology); Dr. Keth (Physics); and Mr. Wimer (Mathematics).

BIOLOGY, CHEMISTRY, EARTH SCIENCE

Pennsylvania Mining Professionals Scholarship: This \$500 award is sponsored by the Pennsylvania Mining Professionals, through the Clarion University Foundation, in support of a senior student majoring in Biology, Chemistry or Earth Science who is interested in some aspect of the coal industry. Prospective candidates must have a minimum QPA of 3.0. Selection is based upon financial activities and completion of a statement of career goals. For additional information, contact a member of the scholarship committee: Dr. Ernissee (Geography); Dr. Sharpe (Chemistry); Dr. Aharrah (Biology); or Dr. Sessions (Dean, Continuing Education and Graduate Studies).

COLLEGE OF BUSINESS ADMINISTRATION

Charles P. Leach, Sr. Scholarship: A cash award of \$500 awarded annually to an outstanding business student. Eligible students must be of at least sophomore standing and are selected on the basis of academic record, contribution to the College of Business and the university, and participation in extra-curricular activities such as professional organizations. Application is made to the chairperson of the College of Business Administration scholarship committee during the spring semester. Payment is made by the Foundation.

Phi Beta Alpha Outstanding Senior Award: Presented to the senior who is most outstanding in academic performance, leadership and campus involvement. See the chairperson of the College of Business Administration scholarship committee for further information.

Wall Street Journal Student Achievement Award: Award made each year to a graduating senior business major consisting of a wall plaque and a one year subscription to the Wall Street Journal. Candidates are recommended by faculty members and final selection is based on academic record, contributions to the College of Business and the university, and participation in extra-curricular activities. Further information can be obtained by contacting the chairperson of the College of Business Administration scholarship committee.

ACCOUNTANCY

American Accounting Association -- Arthur H. Carter Scholarship: A \$2500 tuition credit scholarship presented by American Accounting Association. Junior accounting majors in the top of their class should make application during spring semester through the department. Committee selection of the recipient is based on academic record, leadership qualities and participation in extra-curricular activities.

American College Scholarship: Outstanding accounting students are eligible to apply for this award of \$500, \$1000, or \$2000. Application should be made in the spring semester before March 1 to the Accountancy Department scholarship committee. Selection is based on academic excellence, creativity, motivation, and leadership. Letters of recommendation are required. Contact the Accountancy Department Chairperson for further information.

Becker CPA Review Award: Award made each year to a graduating senior accounting major consisting of the review course worth \$850 and a cash award of \$100. Selection is made by the department based on academic record. The recipient must have a minimum QPA of 3.75 in accounting. Contact Accountancy Department Chairperson for further information.

National Association of Accountants Senior Award: Award made each year to an outstanding senior accounting major who is selected by the department. The recipient receives a plaque presented by the National Association of Accountants. Contact Accountancy Department for information.

National Association of Accountants Senior Award: A \$300 award made by the Board of Directors of the Northwest Keystone Chapter of the NAA to a senior accounting major. Students must maintain a 3.5 overall QPA as well as a 3.5 in accounting. Candidates should apply to the Accountancy Department Chairperson by May 1. Recipient is selected on the basis of scholastic achievement, involvement in extra-curricular activities and statement of goals.

National Society of Public Accountants Scholarship: A tuition credit scholarship awarded to a junior accounting major by the scholarship committee of the National Society of Public Accountants. Candidate must have a 2.0 QPA overall in addition to a 3.0 in accounting. Selection is based on qualities of academic excellence, participation in extra-curricular activities, leadership abilities and financial need. Candidates must also submit letters of recommendation. Application should be made to the Accountancy Department Chairperson in February.

Pennsylvania Institute of Certified Public Accountants Scholarship: Over 30 cash awards varying in amounts of \$100, \$700 and \$1400 are presented to junior accounting majors by the Pennsylvania Institute of Certified Public Accountants. Application should be made before March 1 through the Accountancy Department. Eligible applicants must be full-time students and have completed 12 semester credits in accounting. Applicants are required to submit letters of recommendation. Selection is based upon scholastic achievement and qualities of leadership and is made by the trustees of the PICPA scholarship fund.

Pennsylvania Institute of Certified Public Accountants Senior Award: Award made each year to an outstanding senior accounting student (minimum of 12 credits of accounting required). Recipient is selected by the department on the basis of academics and leadership. A plaque is presented to the awardee by the Pennsylvania Institute of Certified Public Accountants. A small replica of the plaque is displayed in Still Hall. Contact the Accountancy Department for more information.

American Accounting Association Fellowship Program in Accounting (Graduate Students):

A \$1000 fellowship for second year graduate students in business administration or accountancy sponsored by the American Accounting Association. Students should apply prior to February 1 to the Accountancy Department. Candidates must be interested in teaching accounting and must show promise for such a career. Payment is made as a tuition credit paid each semester.

American Institute of Certified Public Accountants Scholarship for Minority Graduate Students in Business:

Scholarship(s) made each year to accounting student in need of financial assistance. A maximum of \$1000 per year will be awarded by the AICPA scholarship committee as a tuition credit. Application should be made to the Accountancy Department by July 1 for the academic year and December 1 for the spring semester. Applicant must be in good academic standing and must submit a statement signed by the University Financial Aid Officer.

ECONOMICS

Omicron Delta Epsilon Award for Distinguished Service: Award made by the local chapter of Omicron Delta Epsilon in recognition of service to the fraternity and Clarion University. Winner receives a plaque. See Dr. William Ross for further information.

Omicron Delta Epsilon Award of Honor for Academic Achievement and Leadership: Award for senior students who have completed 12 credit hours in economics, possess a minimum overall QPA of 3.6, minimum economics QPA of 3.0 and must demonstrate a high level of leadership in university related activities. Winner receives a plaque and their name is registered in the International Omicron Delta Epsilon Headquarters Book of Records. See Dr. William Ross for further information.

Omicron Delta Epsilon Award for Outstanding Achievement in Economics: Award for senior students who have completed 21 credit hours in economics, minimum overall QPA of 3.4, minimum economics QPA of 3.0 and who have demonstrated leadership ability in university related activities. Winner receives a plaque and their name is registered in the Omicron Delta Epsilon International Headquarters Book of Records. See Dr. William Ross for further information.

MARKETING

Outstanding Marketing Student of the Year: The recipient of the award is a marketing major who is selected by the Marketing Department faculty as being outstanding in the areas of scholarship, service to the university and service to the American Marketing Association. The award is presented by the Akron-Canton Professional American Marketing Association Chapter.

COLLEGE OF COMMUNICATION AND COMPUTER INFORMATION SCIENCE

COMMUNICATION

Dr. James Canelos Scholarship: A \$750 scholarship offered to junior communication majors. Eligibility requires a minimum QPA of 3.4. Final selection is made by department members on the basis of academic record, contribution to the Communication Department and the university, participation in extra-curricular activities and financial need. Application should be made in the fall to the department chairperson. Payment is made by the Clarion University Foundation as a tuition credit.

Outstanding Communication Senior Award: Given each year to the senior who exemplifies in greatest measure the qualities of mind and spirit that lead to success in the communication profession. Information can be obtained from the chairperson of the Communication Department.

COMPUTER INFORMATION SCIENCE

Computer Information Science Scholarships: A \$300 scholarship offered under the same conditions and procedures as the Foundation departmental scholarship and is awarded by the scholarship committee of the CIS Department. The purpose is to guarantee that students from both majors in the CIS Department (CS-Computer Science and CAIS Computer Application and Information Systems) are awarded a scholarship each year. For additional information, contact the CIS Department Chairperson.

Data Processing Management Association Elizabeth Ross Scholarship: A \$100 scholarship awarded to a junior DPMA member majoring in CAIS. Selection is based on academic record, and contribution to DPMA and the department. Additional information can be obtained from the DPMA faculty advisor.

Data Processing Management Association Outstanding Student Award: Given by the Penn-York DPMA Chapter to a Clarion University DPMA chapter member for high academic achievement and chapter leadership. For additional information, contact the DPMA faculty advisor.

George R. Lewis Scholarship: This scholarship award is made available to deserving students in computer science. This is a tuition based scholarship valued at a maximum of \$1000 at this time. Scholarships are renewable annually throughout four years providing that the student maintains QPA standards. Contact the Dean of the College of Communication and Computer Information Science for more information.

COLLEGE OF EDUCATION AND HUMAN SERVICES

EDUCATION

Clarion County Retired Public School Employees Association Scholarship: One \$200 scholarship awarded each year. Candidate must have graduated from a Clarion County High School or have been a resident of Clarion County at the time of high school graduation. Apply in the spring to the Education Department Chairperson. Selection is based on academic record, contribution to department and university, participation in extra-curricular activities and leadership skills. Letters of recommendation are required. Payment is made by the Foundation as a credit toward tuition.

Kappa Delta Pi Award: The purpose of this award is to honor senior Kadelpians who have demonstrated outstanding leadership and achievement in their chosen fields. The honorees are selected by the faculty of the curricula they represent. Contact Kappa Delta Pi faculty advisor for further information.

ELEMENTARY EDUCATION

Parma Dixon Mooney Scholarship: One \$300 scholarship awarded each year to a freshman or transfer student majoring in elementary education. Candidate must be a resident of Clarion County. Apply in the spring to Education Department Chairperson. Selection is based upon academic record, participation in extra-curricular activities and leadership skills. Letters of recommendation are required. Payment is made by the Foundation as a credit toward tuition.

SECONDARY EDUCATION -- MATH AND SCIENCE

Scholars in Education Award: PHEAA (Pennsylvania Higher Education Assistance Agency) offers over 100 scholarships each year to students in math or science who are committed to teaching secondary math or science in a Pennsylvania school. Undergraduates must have a QPA of at least 3.0 in math or science. High school seniors must have SAT scores above 1000, a 3.0 average in math and science and rank in the top 1/5th of their high school class. Available only to Pennsylvania residents, this scholarship ranges in amount from \$1500 up to one-half of tuition at eligible schools. Contact Dr. Ken Mechling, Biology Department for further information. Application should be made prior to April 1. Payment is made by PHEAA each semester to the university as credit towards tuition and fees.

SPECIAL EDUCATION

Ginny Thornburgh Recognition Scholarship: One \$500 scholarship awarded each year to an outstanding junior or senior majoring in special education. Selection is based upon academic record (minimum QPA 3.5) and service to exceptional individuals. Contact the Special Education Department Chairperson.

SPEECH PATHOLOGY AND AUDIOLOGY

National Student Speech, Language and Hearing Association Honor Award: Award presented to a senior who has demonstrated high academic achievement, clinical excellence and contribution to NSSLHA. Contact the Chairperson of the SPA Department for further information.

Speech Pathology and Audiology Honor Award: Award presented to a senior with a minimum QPA of 3.4 who is judged to be a superior clinician and is considered to be of honorable character and respected by one's peers. Contact the Chairperson of the SPA Department for further information.

Marian Renn Marshall Graduate Fellowship (Graduate Students): This award fund was established through the Clarion University Foundation in memory of Marian Renn Marshall. This award offers assistance to graduate students for participation in special projects. Eligible students must be successfully admitted to the SPA graduate program. Selection is made by the SPA Department on the basis of academic record and financial need. Contact the SPA Department Chairperson for further information.

COLLEGE OF LIBRARY SCIENCE

H. H. Wilson Scholarship (Graduate Students): Awards totaling \$3000 are made every five years to graduate students majoring in library science. Recipients are chosen on the basis of academic excellence and financial need. Selection is made by the departmental scholarship committee and payment is made by the H. W. Wilson Foundation. For further information, contact the Dean, College of Library Science

VENANGO CAMPUS GENERAL SCHOLARSHIPS

Oil City Adelphoi Club Scholarships: Four five awards vary in amount (usually \$300) provided by the Adelphoi Club for Venango Campus students. The scholarship may be used for recruiting or for returning students. Candidates must be residents of Venango County. Scholarships are paid by the Foundation as a tuition credit during the fall semester. For further information, contact Venango Campus Scholarship Committee Chairperson, Administrative Office, Venango Campus.

Venango Campus Scholarship: One \$300 scholarship awarded annually from the Venango Campus fund of the Foundation. Recipient must be a freshman or sophomore; however, the scholarship is used primarily for recruitment purposes. In selecting the recipient, the scholarship committee considers academic record, participation in extra-curricular activities and financial need. For further information, contact the Administrative Office, Venango Campus.

NURSING

Beverly Enterprise Scholarship: Four \$250 scholarships will be awarded to students currently enrolled in or accepted for the Associate of Science or the Bachelor of Science in Nursing programs. Criteria for selection include academic excellence, financial need and service to the community, university and the nursing profession. Contact the Nursing Department, Venango Campus, for further information.

Dolores Sherman Scholarship: One \$500 annual award for full-time students pursuing a BS degree in nursing. Candidate selection criteria include grades in nursing coursework, overall academic record, financial need, recommendation of nursing instructors and service to the university and/or the nursing profession. Payment is made to the university as a tuition credit by the Foundation. Application should be made in the spring to the Nursing Department scholarship committee. Contact the Nursing Department, Venango Campus.

Laura A. Smedley Scholarships: Scholarships, not limited in number and not specified in amount, granted to Venango Campus residents who are graduates of secondary schools serving Venango County. Eligible students must be full-time freshmen or sophomores enrolled in the Registered Nursing Program. Selection is made based upon financial need and academic record. Instructions for complete application process can be obtained from the Nursing Department at the Venango Campus or from Mr. Stephen Kosak, Box 374, Oil City, PA 16301. Deadline for submission of application is April 15.

Quaker State Scholarships: Two \$650 awards given annually to students in nursing, by the Quaker State Oil Refining Corporation. Candidates must have successfully completed the first year of the nursing program. Eligibility criteria include nursing skills, scholastic achievement and financial need. Scholarships are paid to the University as a tuition credit. For additional information, contact the Nursing Department, Venango Campus.

UNIVERSITY CURRICULA

All undergraduate curricula, with the exception of the two-year Associate of Science curriculum in Nursing and Associate of Science Degrees, lead to a bachelor's degree and have a common area of 48 semester hours in general education. Each student should select his general education program carefully in consultation with his faculty advisor.

GENERAL EDUCATION DISTRIBUTION

Goals and Purposes

A university education as conceived by the faculty at Clarion University of Pennsylvania consists of both professional and general education. Professional education is the specialized education and training which aims to prepare a student to earn a living in a particular vocation, profession, discipline, or area of study.

General education is an essential complement to professional education and aims to assist the student's general development as a person and as a citizen through what is generally a liberal arts curriculum. The general education program seeks to avoid the narrowness resulting from highly-structured professional programs by assuming that every student has the opportunity to develop an understanding and appreciation of the intellectual, cultural, and moral forces which have shaped our world, and to provide the basic knowledge and skills that will allow them to enjoy a fuller life.

The breadth of the general education concept requires a broad, coordinated program for its implementation. Students should be free to select, in consultation with their academic advisors, a general education program which meets their personal needs in attaining the general education goals. Students should recognize that certain courses may be more complementary to given professional programs than others. The sum of the general education program selected should be directed toward the student's understanding and appreciation of, and ability to respond articulately to, the following general education areas and area goals:

- I. Modes of communication: To develop the academic knowledge and ability to communicate personal ideas and philosophy.
- II. The Natural World in Scientific Perspective: To show the use of and to provide an appreciation of the scientific method for

inquiry and measurement so that the student may impart scientific facts and principles pertaining to the physical and biological world.

- III. The Human World in Scientific Perspective: To provide a broad understanding of man's social institutions, enabling the student to make intelligent decisions and develop programs in matters of social policy.
- IV. Interpreting Human Existence: To expand the student's understanding and appreciation of the arts; to aid the student in developing a perspective on the past; and to help the student formulate a satisfying personal philosophy.
- V. Personal Development and Life Skills: To learn and develop those personal activities and life skills that will lead to a full and self-satisfying life.

CREDIT HOUR DISTRIBUTION

The distribution below became applicable on August 25, 1975. Students enrolled before that date should follow the general education distribution in effect at the time of their admission, unless changing to the present structure will expedite their degree work. The minimum credit hour requirement in general education is 48 semester hours distributed, in most programs, as follows:

- I. Modes of Communication (minimum) 12 s.h.
 - English Composition¹ 3-6 s.h.
- Courses to be selected from two of the following:
 - Computer Information Science, Elementary Foreign Language², Logic, Mathematics³, Speech Communication⁴ 6-9 s.h.

¹Unless exempted, all students are required to take ENG 111 and earn a minimum grade of "C." Students may enrolled in ENG 110 only if they are assigned to that course. Additional composition courses are restricted to the following: ENG 110, 200, 201, 202, 203, 204, 206; COMM 171, 200, 250, but only students required to do so may take ENG 110.

²May not be used to meet foreign language requirement for the B.A. degree.

³Credit cannot be granted for MATH 100 if it is taken after successful completion of, or concurrently with, any other course in mathematics.

⁴Selection is limited to the following courses: SCT 113, 114, 115, 154, 251, 256, 257, 258, 264.

- II. Natural Sciences and Mathematics (minimum) 9 s.h.
 Courses to be chosen from at least two of the following fields:
 Biology, Chemistry, Earth Science, Mathematics*,
 Physical Science, Physics
- III. Social Sciences (minimum) 9 s.h.
 Courses to be selected from at least two of the following fields:
 Anthropology, Economics, Geography, History, Political
 Science, Psychology, Sociology
- IV. Humanities* (minimum) 9 s.h.
 Courses to be selected from at least two of the following fields:
 Art, English, Intermediate Foreign Language, Literature,
 Music, Philosophy, Speech Communication, Theater
- V. Personal Development and Life Skills (minimum) 9 s.h.
 Health 2 s.h.
 Physical Education Activity Courses 2 s.h.
 (Maximum of 2 credits in physical education activity courses
 may be counted toward graduation.)
 * Courses chosen from General Studies or other disciplinary
 areas or approved student activities for credit . . . (minimum)
 5 s.h.

*ENG 110, 111, 201, 206, 253, and SCT 113 may not be used to meet the humanities requirement.

COLLEGE OF ARTS AND SCIENCES

James J. Scanlon, Ph. D., Dean

Office: 204 Founders Hall

Telephone: 226-2225

The College of Arts and Sciences offers a wide variety of programs in the arts, the humanities, the social and behavioral sciences, the natural sciences, and mathematics.

In the arts, the College offers:

the B.F.A. degree with majors in art and theatre:

the B.M. degree with majors in music performance and music marketing;

the B.A. degree with a major in speech communication; and theatre;

the B.S. in speech communication and theatre.

In the humanities, the following programs are available:

the B.A. degree with majors in English, French, German, philosophy, Russian, Spanish, and speech communication as well as a general major in the humanities.

In the social and behavioral sciences, students may select:

the B.A. degree with majors in anthropology, economics, geography, history, political science, psychology, sociology, sociology/anthropology, and sociology/psychology, as well as a general major in the social sciences;

the B.S. degree with majors in geography and psychology.

In the natural sciences, options include:

the B.A. degree with majors in biology, chemistry, earth science, and physics, as well as a general major in the natural sciences;

the B.S. degree with majors in biology, chemistry, chemistry/engineering, chemistry/business, earth science, medical technology, physics, and physics/engineering.

In mathematics, the College of Arts and Sciences provides several programs:

the B.A. degree with a major in mathematics;

the B.S. degree with majors in mathematics, (with options in applied mathematics, mathematics/computer science, and mathematics/actuarial science) and mathematics/engineering.

The College of Arts and Sciences offers pre-professional advisement programs in the fields of business (pre-MBA), engineering, law, medicine, dentistry, pharmacy, and theology. The College cooperates in its engineering program with the Schools of Engineering at the University of Pittsburgh and Case-Western Reserve University in Cleveland.

The College of Arts and Sciences also cooperates with the College of Library Science and the College of Education and Human Services to provide certification programs in library science and in secondary education, which may be earned concurrently with a B.A. or B.S. degree.

Finally, the College offers an interdepartmental Language and Area Studies Program.

The specific requirements of each of these programs are listed in the pages that follow. Additional information may be obtained from the dean, department chairperson or other individual in charge. All B.A. programs require second year proficiency in a foreign language.

DEPARTMENT OF ANTHROPOLOGY, PHILOSOPHY, POLITICAL SCIENCE, AND SOCIOLOGY

Robert A. Rath, Ph.D., Chair

Professors: Konitzky, Takei, Tu; *Associate Professors:* Bertsch, Girvan, Graybill, Rath, Somers, Straffin, VanBruggen, Zallys

ANTHROPOLOGY, B.A. 51 credits

Required: ANTH 211, 213, 313, and 21 additional credits in anthropology chosen in consultation with a departmental advisor. In addition to 30 credits in anthropology, the following courses are required: HIST 111, 112, 120, PS 210, 211, PSY 211 and SOC 211.

PHILOSOPHY, B.A. 42 credits

Required: PHIL 111, 212, 255, 256, and 15 credits of philosophy electives chosen in consultation with a departmental advisor, with PHIL 352 and 353 recommended. In addition to these 27 credits of philosophy, 15 credits from among the following fields are required: art, English, foreign language, music, speech, and theater.

POLITICAL SCIENCE, B.A. 51 credits
Required: PS 210, 211, 353, 365, or 366 and 18 credits of political science electives. In addition to these 30 credits in political science the following courses are required: ECON 211, 212; SOC 211, 300; and 9 credits from history, anthropology, or psychology.

SOCIOLOGY, B.A. 57 credits
Required: SOC 211, 300, and 351, and 21 additional credits in sociology chosen in consultation with a departmental advisor. In addition, the following courses are required: PSY 211, 230, PS 210, ECON 211, SW 311 plus 12 credits chosen from among anthropology, computer science, history, economics, philosophy, political science, psychology, and social work.

DEPARTMENT OF ART

Eugene A. Seelye, M.A., Chair

Professors: Hobbs; *Associate Professors:* Charley, Edwards, P-Jobb, Joslyn, Grosch, Seelye; *Assistant Professors:* Dugan

ART, B.F.A. 72 credits
Required: ART 121, 222, 125, 126; 12 credits in art history; 15 credits in art foundation courses; 18 credits in an art concentration; 15 credits in art electives; and the Senior Show.

DEPARTMENT OF BIOLOGY

Kenneth R. Mechling, Ph.D., Chair

Professors: Aharrah, Dalby, N. Donachy, Kodrich, Mechling, J.R. Moore, Morrow, Twiest, J. Williams; *Associate Professors:* Belzer, J. Donachy, McPherson; *Assistant Professors:* Barnes, Jetkiewicz

BIOLOGY, B.A. 53 credits
Required: BIOL 153, 154, 201, 202, 203, and 12 credits from approved biology electives. In addition to these 29 credits in biology, the following courses are required: MATH 171; CHEM 153, 163, 154, 164, 254, 264; PH 251 and 252. CHEM 453/463 and GEOG 254 are acceptable electives.

BIOLOGY, B.S.

64 credits

Required: BIOL 153, 154, 201, 202, 203, and 12 credits from approved biology electives. In addition to these 29 credits in biology, the following courses are required: MATH 171; CHEM 153, 163, 154, 164, 254, 264; PH 251, 252; also 11 credits from the following fields: biology, chemistry, computer science, mathematics, physics. In some instances the student may be advised to substitute CHEM 151, 161, 152, 162, and CHEM 251, 252 for CHEM 153, 163, 154, 164, and CHEM 254, 264. This is particularly true if the student plans to take additional chemistry beyond the minimum requirements. CHEM 453, 463, and GEOG 254 are acceptable electives.

The Biology Department also offers a program in Secondary Education; see page 154.

MEDICAL TECHNOLOGY, B.S.

78 credits

The Medical Technology program includes an academic preparation of three years (96 semester hours including general education) at Clarion and a twelve-month course of clinical study in a hospital-based school of Medical Technology accredited by the Committee on Allied Health Education and Accreditation (32 semester hours). Upon successful completion of two years of prescribed courses at Clarion, the student is eligible to apply for admission to the hospital school. Although application is made through the office of the Coordinator of Medical Technology at Clarion, acceptance is at the discretion of the staff of the clinical school. Clinical school spaces are limited, standards for admission are high, and admission to the Medical Technology Program at Clarion does not guarantee admission to the clinical school year. Clarion University maintains affiliations with seven clinical schools, and students may apply to accredited, non-affiliated schools, also. After graduation from Clarion University the student is eligible to take any of several licensing examinations. Successful completion of the exam permits practice of the profession in all states in the United States. Further information on the exams can be obtained from the Coordinator of Medical Technology.

The following courses are required during the three years at Clarion: BIOL 153, 154, 341, 444; CHEM 153, 163, 154, 164, 254, 264, 351, 361; either BIOL 203 or CHEM 453; PH 251, 252; and a math course by advisement. Substitutions for the above courses must be approved in writing by the Coordinator of Medical Technology. Students in the program must maintain the following grade point averages: first semester freshmen, 2.0; second semester freshmen and first semester sophomores, 2.5; thereafter 2.75 with a 2.75 in the natural sciences. Exceptions to these requirements must be approved by the Coordinator of Medical Technology. Specific information about courses, standards, and requirements established by the affiliate hospital schools are provided to enrolled students by the Coordinator of Medical Technology. Students wishing to transfer into the program

must be approved by the Coordinator of Medical Technology and must plan to spend two years on the Clarion campus. Hospital affiliates are The Altoona Hospital, Altoona, PA; The Benedum School of Medical Technology, Western Pennsylvania Hospital, Pittsburgh, PA; Conamaugh Valley Memorial Hospital, Johnstown, PA; Divine Providence Hospital, Williamsport, PA; Harrisburg Hospital, Harrisburg, PA; Saint Vincent Health Center, Erie, PA.

DEPARTMENT OF CHEMISTRY

William N. Brent, Ph.D., Chair

Professors: Beck, Bower, Brent, Krugh, J. Laswick, P. Laswick, McElhattan, Sharpe, *Associate Professor:* Wollaston.

CHEMISTRY, B.A. 62 credits
Required: CHEM 151, 161, 152, 162, 251, 261, 252, 257, 262, 270, 352, 354, 355, 356, 456, 461, and 470. In addition to these 42 credits of chemistry, the following courses are required: MATH 270, 271, 272; PH 251 or 258, and 252 or 259.

Graduates who have met these requirements and one advanced chemistry course will be certified as having completed an approved program as determined by the Committee on Professional Training of the American Chemical Society. Chemistry majors planning to attend graduate school should elect advanced inorganic, organic, or physical chemistry. German is the recommended foreign language.

CHEMISTRY, B.S. 74 credits
REQUIRED: CHEM 151, 161, 152, 162, 251, 261, 252, 257, 262, 270, 352, 354, 355, 356, 357, 456, 461, and 470. In addition to these 42 credits of chemistry, the following courses are required: MATH 270, 271, 272; PH 251 or 258, and 252 or 259 plus 12 credits of approved science/math electives.

Graduates who have met these requirements and one advanced chemistry course will be certified as having completed an approved program as determined by the Committee on Professional Training of the American Chemical Society. Chemistry majors planning to attend graduate school should elect advanced inorganic, organic, or physical chemistry.

CHEMISTRY major with BUSINESS minor 74 credits
Required: CHEM 151, 161, 152, 162, 251, 261, 252, 257, 262, 270, and 8 credits of chemistry electives numbered 300 or above; ACTG 251; MKTG 360; MGMT 320; CIS 206; ECON 221; MATH 221 or MATH 456;

and 9 credits chosen from ACTG 252, 350, 353; FIN 370, 471; MKTG 361, 460, 461, 465; MGMT 321, 324, 420, 421, 425; ECON 310, 340, 351, 361.

The Chemistry Department also offers a program in secondary education; see page 154.

FIVE-YEAR CURRICULAR SEQUENCE LEADING TO A B.S. IN CHEMISTRY AND THE MASTER OF BUSINESS ADMINISTRATION

The Department of Chemistry of the College of Arts and Sciences and the College of Business Administration offer a five-year curricular sequence leading to a B.S. in Chemistry and the M.B.A. degree. Students electing this sequence must meet the entrance requirements of the graduate business program. The undergraduate portion of the program has the following components.

B.S. In Chemistry

I. General Education	48 credits
II. Requirements in the Major	74 credits
1. Required courses in Chemistry (44 credits)	
2. Required supplemental courses (24 credits)	
3. Additional required courses (12 credits)	
III. Free electives - Business courses	12 credits
TOTAL	134 credits

An undergraduate student in this Chemistry MBA curricular sequence is required to show competency or course equivalents in:

1. Finite mathematics, statistical processes, and quantitative methods
2. Economic theory
3. Financial and managerial accounting
4. Financial management
5. Marketing, distribution, and production
6. Management organization, policy, human behavior, and interpersonal communication
7. Legal and social environment
8. Information systems

These competencies can be met by the normal course sequence of a chemistry major with proper advisement with certain specialized courses being taken as free electives. The graduate portion of the program has the following components:

Master of Business Administration

ACTG	552: Management Accounting	3 credits
ECON	510: Advanced Managerial Economics	3 credits
FIN	675: Advanced Financial Management	3 credits
MGMT	521: Organization Structure & Behavior	3 credits
BSAD	690: Business Policy	3 credits
MGMT	626: Production Management	3 credits
MKTG	560: Marketing Decision Making	3 credits
ECON	603: Quantitative Analysis	3 credits
Electives approved by graduate advisor		9 credits
Total		33 credits

COOPERATIVE ENGINEERING PROGRAM

Albert R. Exton, Ph.D., Coordinator

Committee members: *Professors:* Exton, Beck, Gendler

Clarion University has cooperative engineering agreements with the school of Engineering at the University of Pittsburgh and with the Case Institute of Technology of Case-Western Reserve University. Students in this program attend Clarion for three years and one of the engineering schools for two years earning a B.S. degree in physics, chemistry, or mathematics from Clarion and an engineering degree from the engineering school. Students with a cumulative grade point average of 3.0 are virtually guaranteed admission to the engineering school. Students with a cumulative grade point average between 2.75 and 3.0 are considered for admission to the engineering school.

EARTH SCIENCE

EARTH SCIENCE, B.A. AND B.S. See Department of Geography and Earth Science.

ECONOMICS

Instruction for this program is provided by the Department of Economics in the College of Business Administration, but the program is administered in the office of the dean of the College of Arts and Sciences.

ECONOMICS, B.A.

51 credits

Required: ECON 211, 212, 221, 222, 310, 311, 490 and 12 credits of 300 and 400 level Economics courses chosen in consultation with a department advisor. In addition to those 33 credits, the following are required:

- a. HIST 216, PS 210, PS 211
- b. One course from HIST 120, 121, 215
- c. One course from ANTH 211, SOC 211, PSY 211
- d. One course (3 cr. hrs.) in a computer programming language to be selected with advisor consultation
- e. Math competency on the level of MATH 232 or 270 is required but may be met in the general education requirements.

ENGINEERING

See Cooperative Engineering Program, page 96, and Preprofessional Studies in Engineering, page 107.

DEPARTMENT OF ENGLISH

Larry Dennis, Ph.D., Chair

Professors: Dennis, Greco, Grejda, Knickerbocker, Park, Shumaker;
Associate Professors: Caesar, Newman, Reinhardt, Rocklin, Sheraw, Wilson;
Assistant Professors: Campbell, Jablon, Karl, Osterholm;
Instructor: MacBeth

ENGLISH, B.A.

54 credits

Required: ENG 221, 222, 225, 226; and one of 252, 253, 457, 458; one of 303, 305, 307, 342, 343, 401, 412, 413; one of 311, 332, 333, 344, 345, 441; one other course in English literature; and 18 credits of English chosen in consultation with a departmental advisor. In addition to these 42 credits in English, 12 credits representing each of the following fields are required: art, music, philosophy, and speech communication and theater.

The English Department also offers a program in secondary education; see page 157.

DEPARTMENT OF GEOGRAPHY & EARTH SCIENCE

George S. Shirey, Ph.D., Chair

Professors: Leavy, G. Shirey; *Assistant Professors:* Ernissee, Geiger, Zamzow

EARTH SCIENCE, B.A. 49 credits
Required: ES 150, 200, 250, 255, 280, 385; GEOG 125, 225; and 6 credits from approved earth science/geography electives. In addition to these 30 credits of earth science geography, the following are required: MATH 171, 232, and 12 credits from the following fields: biology, chemistry, mathematics, and physics.

EARTH SCIENCE, B.S. 45 credits
Required: ES 150, 200, 250, 255, 270, 280, 385; GEOG 100, 125, 225, 400. In addition to these 33 credits of earth science/geography, 12 credits from among the following courses are required: BIOL 153, 154; CHEM 153, 154, 163, 164; MATH 171, 270, 221; and PH 251, 252.

EARTH SCIENCE (Geology Track) 64 credits
Required: ES 150, 250, 270, 350, 355, 360, 370, 375; GEOG 225, 400; 15 additional hours must be elected from the following -- ES 225, 260, 275*, 280, 300; GEOG 125, 350, 450; BIOL 111; CHEM 351 or Field Camp.** In addition to these 45 credits, the following courses are required: CHEM 153, 154; PH 251, 252; MATH 232.

*Projected for future development.

**In cooperation with another college or university.

GEOGRAPHY, B.A. 57 credits
Required: ES 111; GEOG 100, 125, 250, 257, 260, 275, and 9 credits from among the following: GEOG 115, 255, 258, 300, 350, 385, 400, and 450. In addition to these 30 credits of geography, the following courses are required: ECON 211, 212; HIST 111, 112, 213; PS 210, 211; ANTH, PSY, or SOC 211 and one additional course in anthropology, psychology, or sociology.

GEOGRAPHY, B.S. 42 credits
Required: ES 111; GEOG 100, 125, 225, 260, 325, 400, 450 and 6 additional credits in geography. In addition to these 30 credits in geography, 12 credits from the following fields are required: anthropology, economics, history, political science, psychology, sociology, computer science, and mathematics with CIS 101, 102 and MATH 221 recommended.

The Geography and Earth Science Department also offers a program in secondary education; see page 156.

FRENCH

FRENCH, B.A., See Department of Modern Languages and Cultures.

GERMAN

GERMAN, B.A. See Department of Modern Languages and Cultures.

DEPARTMENT OF HISTORY

Brian Dunn, B.A., Chair

Professors: Day, Duffy, Khan, Swecker, VanMeter; *Assistant Professors:* Abate, Crawford; *Instructor:* Dunn

HISTORY, B.A. 36 credits
Required: U.S. History - 6 credits; European History - 6 credits; History of other geographical areas - 6 credits; and 9 credits of history electives. In addition to those 27 credits of history, 9 credits of cognates to be chosen from the Arts and Sciences or in the Department of Economics.

HUMANITIES

The interdisciplinary Humanities Program is administered in the office of the dean.

HUMANITIES, B.A. 54 credits
54 credits are required from among the following fields: art, English (not including 110 or 111), foreign language (beyond the first year), music, philosophy, speech communication and theater. Each of the fields must be represented by at least one course and a sufficient number of courses at the 300 or 400 levels must be elected to promote a scholarly interest in at least one field.

LANGUAGE AND AREA STUDIES PROGRAM

The Language and Area Studies Program is jointly offered by the Departments of Modern Languages and Cultures, Economics, History, and Anthropology, Philosophy, Political Science, and Sociology. It is not a degree program but a combination of courses that accompanies a major in any one of the participating departments. completion of the program is noted on the student's official record. The requirements are as follows: proficiency in a foreign language at the second-year level; 24 credits (not including first and second year language) in the following departments with each department represented: Modern Languages and Cultures, Economics, Geography, History, Anthropology, Philosophy, Political Science, and Sociology.

LIBRARY SCIENCE

The liberal arts curriculum at Clarion University does not include a program in library science but liberal arts students, regardless of their major may, by taking four courses in library science: LS 257, 258, 260, 357, qualify as provisional librarians under the Pennsylvania Public Library Code. Additional credits may be elected in consultation with the Dean of the College of Library Science.

DEPARTMENT OF MATHEMATICS

Benjamin M. Freed, Ph.D., Chair

Professors: Bezak, Cronin, Gendler, Mitchell, Ossesia, Singh; *Associate Professors:* Freed, Henry, Kopas, Linnan, Lowe, Ringland, Wimer; *Assistant Professors:* Engle, Marchand, Northey

MATHEMATICS, B.A. 40 credits
Required: MATH 270, 271, 272, 451, 452, 471, 472, Seminar and 15 credits of mathematics electives in courses numbered 300 or above.

MATHEMATICS, B.S. 46 credits
(Applied Mathematics Concentration)
Required: MATH 270, 271, 272, Seminar and 27 credits in mathematics electives from courses numbered 300 and above. In addition to these 40 credits of mathematics, two secondary-level courses containing applications of mathematics from a list approved by the Mathematics Department are required. Proficiency in computer programming must also be demonstrated, either by course work or by examination.

MATHEMATICS, B.S. (Computer Science Concentration) 58 credits
Required: MATH 270, 271, 272, 451, 452, 360, 370, Seminar and 15 credits in mathematics electives numbered 300 or above. In addition to these 40 credits of mathematics, the following courses are required: CIS 163, 164, 240, 253, 254, and one computer science elective.

MATHEMATICS, B.S. (Actuarial Science Concentration) 58 credits
Required: MATH 270, 271, 272, 350, 360, 370, 455, 456, Seminar and 12 credits in mathematics electives. In addition to these 40 credits in mathematics, the following courses are required: ECON 211, 212; ACTG 251, 252, FIN 373, and an elective in insurance. Proficiency in computer programming must also be demonstrated, either by course work or by examination.

MATHEMATICS (Cooperative Engineering Program) 68 credits
Required: MATH 270, 271, 272, 350, 370, and 21 credits in mathematics or approved engineering electives. In addition to these 39 credits, the following courses are required: PH 258, 268, 259, 269, 350, 351; CHEM 151, 161, 152, 162; CIS 151. See also the Cooperative Engineering Program description on page 96.

A program in secondary education with a major in Mathematics is described on page 161.

DEPARTMENT OF MODERN LANGUAGES AND CULTURES

Brigitte Callay, Ph.D., Chair

Associate Professors: Callay, Fortis, Nikoulin; *Assistant Professors:* Diaz, Kluesener

FRENCH, B.A. 42 credits
Required: FR 251, 252, 255, 256, 351, and 15 additional credits from courses numbered above 252. In addition to these 30 credits of French, ENG 252; and 9 additional credits in French, geography, and history, and/or ENG 457 and 458, and/or other courses by advisement are required.

GERMAN, B.A. 42 credits
Required: GER 251, 252, 255, 256, 351, and 15 additional credits from courses numbered above 252. In addition to these 30 credits of German, ENG 252 and 9 additional credits in German, geography, and history and/or ENG 457 and 458, and/or other courses by advisement are required.

RUSSIAN, B.A. 42 credits
Required: RUSS 251, 252, 255, 256, 351, and 15 additional credits from courses numbered above 252. In addition to these 30 credits of Russian, ENG 252, and 9 additional credits in Russian and/or geography, history, English are required.

SPANISH, B.A. 42 credits
Required: SPAN 251, 252, 255, 256, 351, and 15 additional credits from courses numbered above 252. In addition to these 30 credits of Spanish, ENG 252 and 9 additional credits in Iberian and/or Latin American geography and history, and/or ENG 457 and 458 and/or other courses by advisement are required.

The Department of Modern Languages and Cultures also offers several programs in secondary education; see pages 158, 160, 163, 165.

See statement on International Education-Study Abroad, page 34.

DEPARTMENT OF MUSIC

Donald F. Black, M.Ed., Chair

Professors: Farnham, Michalski, Mitchell; *Associate Professors:* Berberian, Black, Bohlen, Hall, Lazich, McLean, Urrico; *Assistant Professors:* Amrod, Lassowksy, Wells

MUSIC, B.M. Performance

The primary emphasis of the Bachelor of Music degree in Performance is on the development of the skills, concepts, and sensitivity essential to the professional life of a performing musician.

As a performer, composer, scholar, or teacher the professional musician must exhibit technical competence, a broad knowledge of music and music literature, sensitivity to musical style, and insight regarding the role of music in the life of man. Evidence of these musical aspects and their continuing development is the objective of the Bachelor of Music degree program.

PROGRAM REQUIREMENTS:

GENERAL EDUCATION

The general education distribution for all students in the college is presented on pages 87-89.

SUPPORTING STUDIES IN MUSIC 69-71 credits

Required: 32 credits of applied music, MUS 135, 136, 235, 236, 151,

152, 251, 252, 300:01, 365, or 366, techniques and/or pedagogy, music literature and senior recital requirements are applicable to each performance area, and secondary piano and voice requirements. In addition, participation in a performing organization is required for a minimum of eight semesters.

PIANO COMPETENCY TEST

All majors in music performance must pass the Piano Competency Test by the end of the sophomore year.

JURY EXAMINATIONS

A jury examination in the major applied area is required of each music performance major at the end of every semester. The jury examination at the end of the sophomore year is the Upper Division Jury, which may determine the student's retention in the Music Performance program. Therefore, it requires a substantial presentation of repertoire and technique. The successful performance of the Upper Division Jury may serve as a permission for an optional junior recital provided that the prepared repertoire reflects the potential recital program.

JUNIOR RECITAL OPTION (MUS 300:02)

A student may perform a solo recital during the junior year upon the permission of the applied teacher and upon passing the requisite audition (see Upper Division Jury above).

SENIOR DEGREE RECITAL AND PAPER (MUS 300:03)

A full-length degree recital is required of every music performance major during the senior year. In order to qualify for this recital, the student must pass an audition at the end of the junior year (the program committee may consider a successful junior recital in place of the audition). The recital, which must include representative literature for the medium from contrasting style periods, also requires a formal paper containing analytical and historical information about the works in the program.

PARTICIPATION AND ATTENDANCE IN BI-WEEKLY STUDENT RECITAL SERIES

All students in the department must attend the bi-weekly student recital series presented in the department. Every major in music performance is required to perform at least once a semester at these recitals. Additional performances are encouraged at the discretion of the student and the applied teacher.

SOLO APPEARANCES WITH PERFORMING ORGANIZATIONS

A solo appearance with the appropriate performance organization is recommended in the junior and senior year; a freshman or a sophomore may give a similar solo performance upon the permission and recommendation of the applied teacher and the director of the pertinent organization.

RETENTION STANDARDS

All majors in Music Performance must maintain the following standards in order to remain in the program:

- A semester average of at least 2.00 quality points in all General Education studies.
- A semester average of at least 2.50 quality points in all supporting studies in music, and no grade lower than "C" in this category.
- No more than two semesters with a grade of "C" or lower in the eight semesters of applied area of performance required for graduation (MUS 264-273).

MUSIC, B.M. Music Marketing

70-71 credits

The Bachelor of Music degree in Music Marketing is an interdisciplinary major between the College of Arts and Sciences and the College of Business Administration. The program provides thorough training and a variety of experiences in music, business and management. Graduates from Clarion University of Pennsylvania with a B.M. in Music Marketing will be able to function competently and compete successfully in the rapidly expanding and diverse music industry (music retailing, management, sales, manufacturing, publishing and private teaching).

The curriculum includes required studies in music, business, and general education and offers the student opportunities for free electives and for an internship in the music industry. Professional preparation in the curriculum is dependent upon mastery of subject matter in the areas of music, business, general education and elective areas combined with field experience in the industry.

PROGRAM REQUIREMENTS

GENERAL EDUCATION

The general education distribution for all students in the college is presented on pages 87-89.

REQUIREMENTS IN MAJOR

Required: MUS 135, 136, 235, 236, 300:01, 151, 152, 252, 274, 367, 7 credits of applied music (8 without optional internship), 4 credits from MUS 280-286, secondary piano and voice requirements, participation in a performing organization is required each semester the student is on campus. ACTG 151, MGMT 320, ECON 211 and 212, MKTG 360, 362, 363, 460 or 468. Internship optional.

ATTENDANCE AT RECITALS

Students pursuing degree programs are required to elect MUS 300 and to attend the bi-weekly student recital series for seven to eight semesters as part of their curricular and performance requirements. Performance participation is strongly encouraged.

SENIOR RECITAL

A senior recital is an option for the music marketing major. Students who wish to perform a senior recital must audition in the spring semester preceding the academic year in which the recital is to be scheduled. Students who successfully complete the audition process should elect MUS 300, section 3 to receive credit for this optional elective.

PIANO COMPETENCY TEST

The Piano Competency Test is required of all B.M. Music Marketing majors in order to qualify either for senior recital or an internship. Students are expected to complete the requirements and take the Competency Test by the end of the sophomore year.

NATURAL SCIENCES

An interdisciplinary program.

NATURAL SCIENCES, B.A.

55-59 credits

Required: MATH 270, 271; PH 251 or 258 and 268, PH 252 or 259 and 269; CHEM 153, 154, 163 and 164 or CHEM 151, 152, 161, and 162; BIOL 153, 154; ES 252, 258. In addition to these 44-46 credits, the student must take 5 courses totaling not less than 15 credits; 3 of these courses must be in one science (excluding mathematics) and the other two in a different science or in mathematics. All five must be from approved electives.

PHILOSOPHY

PHILOSOPHY, B.A. See Department of Anthropology, Philosophy, Political Science, and Sociology.

DEPARTMENT OF PHYSICS

William H. Snedegar, Ph.D., Chair

Professors: Exton, Keth, McGowan, Snedegar; *Associate Professors:* Rhode

PHYSICS, B.A.

58 credits

Required: PH 258, 268, 259, 269, 351, 352, 353, 354, 370, 461 and 4 courses from the following: PH 350, 355, 356, 357, 453, 455, 456, and

460. In addition to these courses in Physics, the following are required: MATH 270, 271, 272, 350; CHEM 153, 163.

PHYSICS, B.S.

Required: PH 258, 268, 259, 269, 351, 352, 353, 370, 461 and 4 courses from the following: PH 350, 355, 356, 357, 453, 455, 456, and 460. In addition to these courses in Physics, the following required: MATH 270, 271, 272, 350; CHEM 153, 163; and 3 other courses selected from the sciences, mathematics, or computer science, not including physics.

The Physics Department also offers a program in secondary teacher preparation, page 162. The cooperative engineering programs in various fields of engineering other than Chemical and Petroleum Engineering are also administered by the Physics Department, pages 96 and 107.

POLITICAL SCIENCE

POLITICAL SCIENCE, B.A. See Department of Anthropology, Philosophy, Political Science, and Sociology.

PRE-LAW STUDIES

No particular course of study is required in preparation for law school. The pre-law student may major in any of the degree programs listed above, but certain fields of study are recommended in any case. These are: English, political science, English and American constitutional history, philosophy, speech, accounting, corporate organization. In particular, the following courses are recommended: PS 211, 354; HIST 357; SCT 256, 311; ACTG 251. Interested students should contact the pre-law advisor for additional information.

PRE-MASTER'S OF BUSINESS ADMINISTRATION OPTION

The College of Arts and Sciences in cooperation with the College of Business Administration has prepared a program at the baccalaureate level which provides the basic courses needed for further graduate training for business careers. Undergraduate students intending to complete the pre-MBA option will meet the university's general education and special College of Business Administration requirements, will complete an Arts and Sciences major of choice, and will be advised to enroll in specific business administration and related core courses. Completion of the suggested undergraduate program, however, provides neither certification, nor a minor in business administration, nor a guarantee of admission to any graduate business program. The courses provide the student with a background suitable for study at the graduate level.

The student, through consultation with the pre-MBA advisor, will take first lower division skills and general knowledge courses. These courses should help students assess their ability and interest in business subjects and may also provide background preparation for assistantships during their graduate study. The courses, or approved equivalents, include:

ECON	211: Principles of Macroeconomics
ECON	212: Principles of Microeconomics
CIS	110: Computer Information Processing
MATH	221: Statistics with Applications
MATH	232: Calculus for Business I
	or
MATH	270: Calculus with Analytical Geometry I
ACTG	251: Financial Accounting
ACTG	252: Managerial Accounting
BSAD	240: Legal Environment I

The student will gain admission to the upper division business courses by (1) maintaining at least a 2.75 QPA both in business courses and overall; (2) earning at least 60 credits, or junior standing; and (3) planning to register for the GMAT during the junior year, taking the examination during the first semester of the senior year. The upper division courses suggested are:

MGMT	320: Principles of Management
MKTG	360: Principles of Marketing
FIN	370: Financial Management
MGMT	425: Production Management

The Arts and Sciences pre-MBA student may not take more than 30 undergraduate credits in the College of Business Administration at Clarion unless formally admitted to Clarion's MBA program. Changes in the requirements for admission to the upper division courses, as well as the list of suggested appropriate courses, may be made upon approval of both the Colleges of Arts and Sciences and Business Administration. Students should consult Dr. Gendler, the pre-MBA advisor, before registration each term.

PRE-PROFESSIONAL STUDIES IN ENGINEERING

Since curricular requirements vary among engineering schools and fields of specialization, students planning to transfer to a school of engineering must give careful consideration to the requirements of the institutions to which they intend to apply and, with the exception of those in the Cooperative Engineering Program, q.v., should plan to transfer no later than at the completion of their sophomore year. The

following courses should be included in their programs at Clarion: MATH 270, 271, 272, 350, 270; CHEM 151, 152, 161, 162; PH 258/268 and 259/269. Interested students should contact Dr. Exton of the Physics Department.

PRE-PROFESSIONAL STUDIES IN MEDICINE, DENTISTRY, AND RELATED FIELDS

Students who enroll at Clarion intending to enter a professional school for the study of medicine, dentistry, optometry, podiatry, chiropractic, or veterinary medicine, are advised by the Pre-Professional Committee. While a student may choose any academic major, he/she must complete sufficient course work in the sciences, mathematics, and liberal arts to meet admission requirements established by the professional schools. In addition to academic requirements many professional schools expect applicants to have engaged in specific kinds of services related to the profession and to be able to demonstrate a knowledge of the profession through these services. Students must also take an admissions examination designed by the professional association to assist admissions committees in evaluating the applicant's preparation for that profession. Such examinations (MCAT, DAT, GRE, etc.) are normally taken near the end of the junior year or the beginning of the senior year at Clarion.

Since the following courses are usually required by professional schools, it is recommended that students complete the following work at Clarion:

BIOL	153	Intro to Animal Biol	BIOL	451	Animal Physiology
CHEM	153/163	General Chemistry I	CHEM	154 164	General Chemistry II
		OR			OR
CHEM	151/161	Chem Principles I	CHEM	152 162	Chem Principles II
CHEM	251/262	Organic Chem I	CHEM	252 262	Organic Chem II
PH	251	General Physics I	PH	252	General Physics II
MATH	270	Calc w/Anal Geom I	ENG	200	Composition & Lit
ENG	111	English Composition			OR
			ENG	201	Advanced Composition

The student must also complete the requirements for an academic major within a specific department. If the student chooses to major in one of the sciences, the above courses may be included in the major.

Requirements for admission to specific professional schools vary slightly; thus, the student must determine such requirements through the Pre-Professional Committee.

Admission requirements for the professional schools are high and competition is intense. Students usually should have high school SAT scores of 1000 or better and high school grade average of 3.5 with emphasis in the sciences, mathematics, and English before starting a pre-professional program. To remain in the program, the student should maintain an academic standing appropriate to admission requirements for his or her particular professional school.

The Pre-Professional Committee will assist students in arranging to take admissions examinations and preparing admissions materials. For information send inquiries to Dr. Paul E. Beck, Department of Chemistry, Chairperson, Pre-Professional Committee.

To insure proper advisement, students must contact the Pre-Professional Committee at once.

PRE-PROFESSIONAL STUDIES IN PHARMACY

It is possible for a student to transfer to a school of pharmacy after the completion of either the freshman or sophomore year. In either case, he/she should carefully check the requirements of the school he/she wishes to enter. If the student plans two years of pre-pharmacy study at Clarion, he/she should include the following courses in his program: BIOL 153, 154; CHEM 153, 154, 163, 164, 251, 252; MATH 270; PH 251 and 252. Interested students should contact the pre-pharmacy advisor, Dr. Beck, for additional information and assistance.

PRE-THEOLOGICAL STUDIES

There is no fixed pattern of pre-seminary studies, but the American Association of Theological Schools recommends that students who are planning to enter a seminary should major in English, philosophy, or history. Interested students should contact the pre-theology advisor, Dr. Bodoh.

DEPARTMENT OF PSYCHOLOGY

Richard Nicholls, Ph.D., Chair

Professors: Combs, McCauley, Nachtwey, Thornton, S. Williams;
Associate Professors: Nicholls, Potter, Semon; *Assistant Professors:* Jolley

PSYCHOLOGY, B.A.

54 credits

Required: PSY 211, 230, 251, 470, and at least 18 credits in psychology electives chosen in consultation with a departmental advisor. Three elective courses at the 400 level, in addition to PSY 470, are required. At least one course must be taken from the following: PSY 454, 457, 460, 464, or 499; and at least one from the following: PSY 452, 455, 458, 459, or 465. In addition to the 30 credits in psychology, students are required to select 24 credits representing at least three of the following fields: anthropology, biology, chemistry, computer science, history, mathematics, philosophy, physical science, physics, political science, sociology, special education, speech pathology and audiology. Note: Only two of PSY 260, 321, and 331 may be included in the 18 elective credits. In addition to the above, students are required to pass the final examination in their 252 numbered language course.

PSYCHOLOGY, B.S.

54 credits

Required: PSY 211, 230, 251, 470, and at least 18 credits in psychology electives chosen in consultation with a departmental advisor. Three elective courses at the 400 level, in addition to PSY 470, are required. At least one course must be taken from the following: PSY 454, 457, 460, 464, or 499; and at least one from the following: PSY 452, 455, 458, 459, or 465. In addition to the 30 credits in psychology, students are required to select 24 credits representing at least three of the following fields: anthropology, biology, chemistry, computer science, history, mathematics, philosophy, physical science, physics, political science, sociology, special education, speech pathology and audiology. Note: Only two of PSY 260, 321, and 331 may be included in the 18 elective credits. In addition to the above, students must complete either two computer courses, one mathematics course (MATH 115 or above), or one computer course and two mathematics courses (MATH 115 or above). Either PHIL 111 or 112 is also required of all students seeking the Psychology B.S. degree.

RUSSIAN

Russian, B.A. See Department of Modern Languages and Cultures.

SOCIAL SCIENCES

The interdisciplinary Social Sciences program is administered in the office of the dean.

SOCIAL SCIENCES, B.A.

54 credits

54 credits are required for the major, including 15 credits in one of the following disciplines: anthropology, economics, geography, history, political science, psychology, and sociology, 9 credits in one other, and 6 credits in each of the remaining. At least 12 credit hours must represent junior and/or senior level work.

SOCIOLOGY -- PSYCHOLOGY

Robert A. Rath, Ph.D., Coordinator

Committee members: *Associate Professors:* Rath, Semon

An interdisciplinary program.

SOCIOLOGY-PSYCHOLOGY, B.A.

54 credits

Required: SOC 211, one of 351, 361, or 362, one of 352, 363, or 370 and three courses of sociology electives; PSY 211, 230, 251 and three courses of approved psychology electives. In addition to these 36 credits in sociology and psychology, 18 credits must be selected representing at least two of the following fields: anthropology, economics, geography, political science.

SPANISH

SPANISH, B.A. See Department of Modern Languages and Cultures.

DEPARTMENT OF SPEECH COMMUNICATION AND THEATER

Adam Weiss, Ph.D., Chair

Professors: Hardwick, A. Weiss, Wright (PT); *Associate Professors:* Clark, Marlin; *Assistant Professors:* Michel; *Instructors:* Hartley, McCauliff, Nees

SPEECH COMMUNICATION, B.A. 36 credits

Required: 36 credits selected from the following courses: SCT 115, 155, 200, 210, 213, 214, 215, 251, 256, 257, 264, 300, 310, 311, 312, 333, 358, 375, 400, 411, 415, 490 and 495.

SPEECH COMMUNICATION AND THEATER, B.A. 36 credits

Required: 12 credits from among the following: SCT 115, 155, 200, 210, 213, 214, 215, 251, 256, 257, 264, 300, 310, 311, 312, 333, 358, 375, 400, 411, 415, and 490; 12 credits from the following: SCT 120, 155, 161, 201, 215, 251, 253, 254, 255, 262, 301, 350, 351, 352, 355, 359, 361, 362, 364, 365, 366, 367, 401, 461, and 490; 12 credits among any of the SCT courses above and 495.

SPEECH COMMUNICATION AND THEATER, B.S. 57 credits

- (1) Concentration in Interpersonal Communication: Required: 15 credits from among SCT 200, 214, 264, 300, 312, 358, 375, 400, and 415; a required elective and 18 credits selected from other SCT courses; 6 credits from MATH 115, 171, 221; ECON 221, 222; CIS 151, 152, 200, 223, 224, 253; and 6 additional credits from MATH, ECON, CIS courses previously listed, or from PSY 230, 251, 455, or PHIL 111, 112; and 9 credits by advisement in one of the following: anthropology, business, communication, English, history, philosophy, political science, psychology or sociology.
- (2) Concentration in Public Communications: Required: 15 credits from among SCT 210, 213, 214, 215 (Rhetoric of Presidential Campaigns), 256, 300, 311; required elective from either COMM 152 or COMM 177, and 18 credits selected from among SCT 115, 200, 213, 215, 257, 310, 312, 358, 400, 415, GS 222; 6 credits selected from MATH 115, 171, 221, ECON 221, 222; CIS 151, 152, 200, 223, 224, 253; and 6 additional credits from MATH, ECON, CIS courses previously listed, or from among PSY 230, 251, 455 or PHIL 111, 112; and the following three required core courses of MGMT 220, MGMT 312, COMM 431.

THEATER, B.F.A.

53 credits

- (1) Concentration in Acting: Required: SCT 155, 201, 251, 253, 254, 255, 301, 359, 361, 363, 365, 366, 461, MUS 162, 163, 172 and 12 credits from among SCT 113, 120, 161, 200, 264, 350, 351, 352, 355, 362, 400; ENG 172, 343, 345, 412, 413. Also required are an audition, four non-credit production labs, a recital, and periodic workshops.

THEATER, B.F.A.

48 credits

- (2) Concentration in Technical Design/Direction: Required: SCT 120, 161, 253, 262, 352, 359, 362, 363, 364, 367; ART 121, 125, and 12 credits from among SCT 155, 254, 350, 351, 495; ENG 172, 343, 345, 412; ART 111, 112, 113, 114, 126, 222; COMM 152, 251, and MUS 131. Also required are a portfolio, four non-credit labs, a design project and periodic workshops.
- (3) Selection/Retention Standards for BFA/Theater majors: Students must demonstrate potential for excellence in acting or technical design by means of an audition and/or a portfolio of designs, and audition for acceptance into the degree no later than the end of their second semester in the program. After completing a total of 60 credit hours, or prior to entering their junior year, B.F.A. students must appear before the theater staff and demonstrate the following: a minimum of QPA of 2.50 in at least 12 credits within the required core curriculum and a written statement of career goals. At the time of this review, the theater staff will inform the B.F.A./Theater student of any program deficiencies and specify a time limit for removing the deficiencies. If the student fails to meet the retention standard, he/she will be dropped from the B.F.A./Theater program. Students may appeal the decision of the theater staff through the appropriate channels: Department Chair, Dean, Vice President for Academic Affairs.

TEACHER CERTIFICATION

Liberal Arts students can gain teacher certification in secondary education by taking required education courses as free electives in a B.A. or B.S. program. Details are available in the Office of the Dean of the College of Education and Human Services.

BACHELOR OF SCIENCE IN GENERAL STUDIES

Administered by the College of Arts and Sciences, the B.S. in General Studies is a separate program designed to provide for students who have not decided upon a specific school or major and may, therefore, benefit

from enrolling in a structured program through which they can explore a number of disciplines. The program is also intended for students who wish to develop a highly individualized program and follow it through to graduation because their interests are not accommodated by the established curricula and majors. However, it is not necessary for students who enter the university undecided about a major to continue in General Studies through graduation. Many students who come to the university and enter this program will develop interests that will lead them to declare a specific major.

General Requirements

Admission requirements for the B.S. in General Studies are the same as those for admission to the university.

The degree is based upon the standard eight-semester sequence of courses and requires a minimum of 128 semester hours of credit for graduation.

A candidate for the B.S. in General Studies may not declare a specific major field. Students who decide upon a major field may not remain in the program but must transfer to the college and department offering a program encompassing the major.

Students may transfer from other areas into the General Studies program, but those who wish to transfer in must have at least two semesters of full time study remaining prior to graduation.

Academic standards for good standing in the program are the same as the university standards for good standing.

To earn the B.S. in General Studies the student must have a minimum cumulative quality point average of 2.00 for all course work.

Specific Requirements

General education is as required by the university (48 s.h.)

A sufficient number of Arts and Sciences courses in addition to general education courses is required for the program (51 s.h.)

Maximum course work in a single discipline (in addition to general education above) is limited (39 s.h.).

A sufficient number of upper division courses, normally at the 300 level or above, are required for the program (39 s.h.).

All courses must be selected in consultation with an advisor.

COLLEGE OF BUSINESS ADMINISTRATION

Marguerite H. VanLandingham, Ph.D., Dean

Office: Still Hall

Telephone extension: 2600

PHILOSOPHY AND OBJECTIVES

The College of Business Administration offers curricula leading to the degree of Bachelor of Science in Business Administration, the Master of Business Administration and the Associate of Science Degree in Business Administration. The description below is concerned mainly with the undergraduate curriculum. For full information concerning the MBA program, refer to the *The Graduate Studies* bulletin and the *Master of Business Administration* bulletin, which may be obtained from the College of Business Administration, Clarion University, Clarion, PA 16214. The description of the Associate of Science degree program is found on pages 190-194.

The curriculum leading to the degree of Bachelor of Science in Business Administration is designed to assist students in arriving at a better understanding of the complex relationships inherent in the rapidly changing domestic and international world of business, industry, and government; to provide educational experience that will help students develop their potential for leadership and service; to stimulate the growth of students as individuals and citizens; and to provide a qualitative environment in which educational enrichment can take place.

Supplemented by broad general requirements in the humanities, the social sciences, and the natural sciences, the business curriculum offers a well balanced program of courses in business administration and economics which will not only help prepare students for careers in business, industry, and government, but will also give preparatory training to students who plan to further their education through graduate study in business, economics, or law.

Although there is opportunity to develop depth in certain areas, i.e., accountancy, economics, finance, industrial relations, management, management/library science, marketing, office management, and real estate, emphasis in the program is not on deep specialization but rather on the development of analytical ability, intellectual toughness, imagination, the ability to communicate ideas, and adaptability so that technological change does not render the education obsolete.

ACADEMIC STANDARDS

1. Math requirements. All students in the College of Business Administration are required to take MATH 131 and 232 or their equivalents. Advanced courses beyond MATH 131 and 232 are accepted in lieu of this requirement. These may include MATH 171 or above for MATH 131. For MATH 232, students may substitute MATH 270, 271, or 272.
2. Separation of upper- and lower-division programs of study. All business students are required to apply for admission to the upper-division course of study in the College of Business Administration. The upper-division consists of all courses numbered 300 and above. No student is permitted to take any 300- or 400-level course in the College of Business Administration until the student has applied for and been accepted into the upper-division. In order to apply and be accepted for upper-division study in the College of Business Administration each student shall:
 - a. Have completed MATH 131 and 232 or their equivalents;
 - b. Have completed all required courses in the business core with a 100- or 200-level designation;
 - c. Have completed not less than 50 hours with a minimum average of 2.00/4.00. In addition each student shall have a minimum average of 2.00/4.00 in all 100-level and 200-level course in the business core.
3. Upper-division courses are considered those courses numbered 300 or above. Each student shall have a minimum average of 2.00/4.00 in all the 300-level or above courses in the business core. In order to graduate a student must meet university requirements, the above standards, and achieve a minimum grade of C in each course presented as meeting the requirements for the major. The semester hour credits required for the degree of Bachelor of Science in Business Administration are summarized as follows:

General Education:	54 credits
Business Foundation subjects:	36 credits
Business and Economics Electives (Majors):	24 credits
Free Electives:	14 credits

Total required for graduation	128 credits
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4. All business majors at Clarion are required to take at least six (6) credits in courses with international content. These credits are to be utilized to satisfy requirements in either the major or free electives. At least three of these should be business credits and will be applied to the major. Courses taken to satisfy this requirement must be selected from the approved international course list. Students should see their advisor or check with the Dean's Office, Still Hall, for the approved list.

GENERAL EDUCATION REQUIREMENTS

The general education program required for all students in the university is presented on pages 87-89; however, students majoring in Business Administration must include six credits in mathematics (at least MATH 131, 232, or their equivalents, in fulfilling general education or free elective requirements. They must also add six credits in economics (ECON 211 and 212). The general education requirements are summarized as follows:

Modes of Communication	12 credits
Natural Sciences & Mathematics	9 credits
Social Sciences	9 credits
Humanities	9 credits
Personal Development & Life Skills	9 credits
(includes Health and Physical Education)	
Additional General Education (Economics)	6 credits
Total	54 credits

BUSINESS FOUNDATION REQUIREMENTS

Regardless of the major chosen, all students of Business Administration must take 36 hours of **Foundation Subjects**. These have been selected with the following primary objective in mind:

1. To give students an insight into the major functions of organizations whether they be private business firms or local, state, or federal government agencies.
2. To give students an understanding of the major problems within organizations as they pursue their goals.
3. To assist students in using the insights and methods of the humanities, social sciences, and natural sciences to analyze and illuminate these problems. Each of the Foundation Subjects either deals with an important aspect of organization or provides a tool which can be used in attacking problems faced by individuals in organizations. The courses as a whole comprise a common body of knowledge in business and administration.
4. To provide students with an understanding of the domestic and world-wide environment of business.

The following foundation courses are required of all business administration students.

ACCOUNTING AND QUANTITATIVE

CIS	110:	Computer Information Processing	3 credits
ACTG	251:	Financial Accounting	3 credits
ACTG	252:	Managerial Accounting	3 credits
ECON	221:	Econ. & Bus. Statistics I	3 credits
ECON	222:	Econ. & Bus. Statistics II	3 credits

ENVIRONMENTAL

BSAD	240:	Legal Environment I	3 credits
ECON	310:	Intermediate Microeconomics	3 credits

NOTE: ECON 211 and 212 are prerequisites for ECON 310.

FUNCTIONS

MGMT	320:	Managment Theory and Practice	3 credits
MKTG	360:	Principles of Marketing	3 credits
FIN	370:	Financial Management	3 credits
MGMT	425:	Production Management	3 credits

ADMINISTRATIVE PROCESS

BSAD	490:	Admin. Decision Making	3 credits
Total			36 credits

MAJOR REQUIREMENTS

In addition to the general education and business foundatin courses outined above, all students studying business administration must build up a major consisting of at least eighteen hours in one of the following areas:

Accountancy	Management
Economics	Management/Library Science
Finance	Marketing
Industrial Relations	Office Management
	Real Estate

Twenty-four hours of business and economics electives are required for each major. Of these twenty-four hour, at least eighteen are specified for the major, and three hours must be an approved business or economics course with an international emphasis. Any unspecified hours in the major may be satisfied by any business or economics course not used to meet other requirements. Specific course requirements for each of these majors are outlined under the five academic departments on the following pages.

CONCENTRATION IN INTERNATIONAL BUSINESS

The College of Business Administration also offers an interdisciplinary Concentration in International Business, open to all business administration and other majors meeting the prerequisites for courses required in the program. Students wishing to formally elect this Concentration are urged to contact their advisor or the Department of Economics, which administers the program, early in their college career. Additional information can be obtained from the Director of International Programs office.

The Concentration in International Business includes four program requirements:

1. International Business Courses: students must complete four upper division international business courses (12 credits) from among the following:

ECON 312: Comparative Economic Systems
(prerequisites: ECON 211; ECON 212)

ECON 361: International Economic Relations
(prerequisites: ECON 211; ECON 212)

FIN 480: Multinational Financial Management
(prerequisites: ECON 211; ECON 212; ACTG 251;
ACTG 252; FIN 270)

MGMT 426: International Business
(prerequisite: MGMT 320)

MKTG 469: International Marketing
(prerequisite: MKTG 360)

2. International Cultural Courses: students must complete two courses (6 credits) from the College's Approved International Course List (excluding business courses and elementary or intermediate foreign language courses).
3. Foreign Experience Requirement: students meet their requirements in a variety of ways including completing BSAD 437: International Business Seminar; completing a COOP or Internship course working with a foreign or international firm; or completing a foreign study abroad experience. Students who opt for an internship in a foreign country are advised to take a COMMERCIAL Language course.
4. Modern Language Requirement: students must show competency in a language other than English. This will be accomplished by passing a nationally recognized language proficiency exam at Level I as a minimum in any language covered by that examination. Students interested in taking an internship in a foreign country are required to be proficient in that language at Level II.

DEPARTMENT OF ACCOUNTANCY

Charles J. Pineno, Ph.D., Chair

Office: Still Hall

Telephone extension: 2626

Professors: Campbell, Dupree, Hong, Pineno, Que; *Associate Professors:* Bagley, Farinacci; *Assistant Professors:* Barnes, Brosnahan, Otte

ACCOUNTING (BSBA)

The following course are required:

ACTG 350:	Intermediate Accounting	3 credits
ACTG 351:	Accounting for Equities	3 credits
ACTG 352:	Cost Accounting	3 credits
ACTG 353:	Federal Taxes	3 credits
ACTG 354:	Auditing	3 credits
ACTG 355:	Advanced Accounting	3 credits

One course from the following:

ACTG 451:	Accounting Problems
ACTG 452:	Advanced Cost Accounting
ACTG 453:	Problem in Federal Taxation Accounting
ACTG 454:	Comparative Accounting Systems
ACTG 455:	Not-For-Profit Entities
*ACTG 490:	Current Accounting Pronouncements & Practice
ACTG 499:	Tax Topics

* Prerequisite: COOP 420: Accounting Internship offered during the spring semester of the senior year for 9 credits.

One international business course from the following:

MGMT 426:	International Business
BSAD 437:	International Business Seminar
ECON 312:	Comparative Economic Systems
ECON 361:	International Economic Relations
FIN 480:	Multinational Financial Management
MKTG 469:	International Marketing

Suggested Course of Study Sequence:

Refer to the eight semester sequence listed on pages 122-123. ECON 370 or ECON 410 and BSAD 241 are not required courses but should be selected by students participating in the Five-Year Professional course of study.

A ten-week, full-time Accounting Internship is available to qualified

seniors during the Spring semester for 9 credits. The last five weeks of the Spring semester are for the ACTG 490: Current Accounting Pronouncements and Practice course for 3 credits. A limited number of accounting internships are available during the Summer for 3-9 credits.

ACCOUNTING (BSBA/MBA)
PROFESSIONAL ACCOUNTANCY COURSE OF STUDY

The Professional Accountancy Program leads to both the Bachelor of Science in Business Administration and the Master of Business Administration degrees. The sequence of 164 semester hours of course work (167 semester hours with any 400 level Accounting course included) is designed to prepare persons for entry into the practice of professional accountancy as prescribed by the American Institute of Certified Public Accountants.

FRESHMAN YEAR

- | | |
|----------------------|----------------------|
| 1. General Education | 2. General Education |
|----------------------|----------------------|

SOPHOMORE YEAR

- | | |
|--|--|
| 1. General Education
and General Business | 2. General Education
and General Business |
|--|--|

JUNIOR YEAR

- | | |
|---|--------------------------|
| 1. General Business | 3. General Education |
| 2. Professional Accounting | 4. Advisement and Review |
| Admission to Professional Accountancy Course of Study | |

SENIOR YEAR

- | | |
|--|--|
| 1. Approval for Continuation
in Course of Study | 5. Advisement and Review |
| 2. General Education | 7. Graduation |
| 3. Professional Accountancy | a. Optional exit with
Bachelor of Science |
| 4. General Education | Degree |
| 5. Admission to Graduate
School | b. Bachelor of Science
Continue in course
of study |

GRADUATE YEAR

- | | |
|--|---|
| 1. Approval for Continuation
in Course of Study | 3. Professional Accountancy |
| 2. General MBA Courses | 4. Graduate with Master
of Business Administration |

Courses with 500 or 600 numbers are graduate level courses only. Courses with 400 numbers may be graduate or undergraduate credit (graduate credit must have prior approval).

Elective Credits:

In selecting electives to meet general education requirements students should select the following:

Business Law: Three additional credits should be selected (BSAD 241: Legal Environment II)..... 3 credits

Intermediate Economic Analysis and the Monetary System: Three credits involved with the study of monetary system, (e.g., ECON 370: Money and Banking; ECON 410: Managerial Economics) should be selected 3 credits

Written and Oral Communications: Six credits beyond English III in written and oral communications must be selected.

Three of these credits must be related to written business communications (e.g., ENG 206: Business Writing). Three additional credits must be in oral communications (e.g., SCT 113: Fundamentals of Speech; SCT 213: Advanced Public Speaking; SCT 300: Communication in Organizations).

A student participating in the Professional Accountancy course of study must select courses such that all of the general education requirements are met. The courses to meet these education requirements should be determined jointly by the student and his/her advisor. If there are elective hours available at either the undergraduate or graduate level, and if selected, such electives must be classified as free electives on the existing check sheet for business students.

Suggested Course of Study Sequence:

It is conceivable that the course of study could be completed in as few as ten semesters by following the suggested sequence. Students who are awarded Graduate Assistantships should expect to extend the time necessary to complete the course of study. Other students may wish to spread their studies over eleven or twelve semesters, depending on their particular needs and abilities.

FIRST SEMESTER				SECOND SEMESTER			
MATH	131	Math for Business and		BSAD	240	Legal Environment	3
		Economics	3	MATH	232	Calculus for Business I ..	3
		Written or Oral				Written or Oral	
		Communications	3			Communications	3
		General Education	10			General Education	7

THIRD SEMESTER

ACTG	251	Financial Accounting	3
ECON	211	Principles of Macro-economics	3
ECON	221	Economics & Bus Stats I	3
CIS	110	Computer Info Processing Written or Oral Communication	3

FOURTH SEMESTER

ACTG	252	Managerial Acctg	3
ECON	212	Principles of Micro-economics	3
ECON	222	Economics & Bus Stats II	3
		General Ed	6

FIFTH SEMESTER

ACTG	350	Intermediate Acctg	3
ACTG	352	Cost Acctg	3
ECON	310	Intermediate Micro	3
FIN	370	Financial Mgmt.	3
MGMT	320	Mgmt Theory and Practice General Ed or Electives	3

SIXTH SEMESTER

ACTG	351	Acctg for Equities	3
ACTG	353	Federal Taxes	3
MKTG	360	Prin. of Marketing	3
		General Ed	6
		Electives (ECON 370 or 410)	3

SEVENTH SEMESTER*

ACTG	354	Auditing	3
ACTG	355	Advanced Accounting	3
MGMT	425	Production Mgmt General Education Elective (BSAD 241)	3

EIGHTH SEMESTER*

		Accounting Elective	3
MGMT	490	Administrative Decision Making	3
		General Education or Internship	6-9
		International Business	3

NINTH SEMESTER*

ACTG	653	Federal Tax Research & Practices	3
MGMT	521	Org Structure & Behav	3
ACTG	650	Theory of Accts	3
ECON	510	Managerial Econ	3
ECON	603	Quant Analysis for Bus Decisions Actg Electives	3
MKTG	560	Marketing Decision Making	3

TENTH SEMESTER*

ACTG	652	Advanced Cost and Managerial Acctg	3
ACTG	554	Advanced Auditing	3
BSAD	601	Info Systems Analysis	3
BSAD	690	Adm & Bus Policy	3
FIN	675	Adv Managerial Finance	3
MGMT	626	Productions operations Mgmt	3

Total Credits 164

*Students may possibly take graduate credits during their senior year and summer, provided they have been admitted to the graduate program.

DEPARTMENT OF ADMINISTRATIVE SCIENCE

James Pesek, Ph.D., Chair

Office: Still Hall, Room 335

Telephone extension: 2626

Professors: Maggio, Reed, Ackerman; *Associate Professors:* F. Clark, Fulmer, McGee, Pesek; *Assistant Professors:* Kavoosi

MANAGEMENT (BSBA)

The following courses are required:

MGMT	321:	Organization Theory and Behavior	3 credits
MGMT	322:	Selection and Mangement of Business Information Systems	3 credits
MGMT	324:	Personnel Management	3 credits

Three courses from the following:

MGMT	323:	Problems in Small Business	
MGMT	420:	Operations Research I	
MGMT	421:	Operations Research II	
MGMT	426:	International Business	
MGMT	427:	Small Business Seminar	
MGMT	445:	Management Seminar	
MGMT	482:	Collective Bargaining	
MGMT	483:	Wage and Salary Administration	
MGMT	485:	Industrial Relations and Public Policy	
MKTG	361:	Marketing Management	
MKTG	366:	Physical Distribution Management	
BSAD	437:	International Business Seminar	

MANAGEMENT/LIBRARY SCIENCE (BSBA)

The following courses are required:

MGMT	321:	Organization Theory and Behavior	3 credits
MGMT	324:	Personnel Management	3 credits
LS	257:	Basic Info. Sources & Services	3 credits
LS	260:	Development and Administration of of Libraries	3 credits

Two of the following:	6 credits
CIS 223: COBOL	
ACTG 353: Federal Taxes	
ECON 351: Labor Economics	

Required Library Science Course (would appear on check sheet under free electives)	6 credits
LS 258: Selection of Library Media	
LS 357: Organization of Media	

Recommended Electives:

COMM 240: Locally Produced Media Materials	
COMM 315: Photography	
COMM 440: Media Production Planning	
CIS 151: FORTRAN I	
LS 255: Introduction to Media Librarianship	

OFFICE MANAGEMENT (BSBA)

The first two years of this major are offered only at the Venango Campus and lead to the Associate of Arts degree. Students will, at their option, be able to transfer to Main Campus, Clarion, with no loss of credit.

Required courses first two years:

General Education	17 credits
General Business courses	27 credits
Skill area:	18 credits
OFMT 132: Production Typing	3 credits
OFMT 136: Executive Shorthand	3 credits
OFMT 221: Office Management	3 credits
OFMT 230: Office Procedures	3 credits
OFMT 232: Word Processing	3 credits
Business Electives	3 credits
Total for Certificate	62 credits

Students moving into the bachelor's degree program will complete their work on the Clarion Campus. They will be held responsible for all of the common requirements for the Bachelor of Science in Business Administration degree and the following specific courses in Administrative Science.

MGMT 321: Organization Theory and Behavior	
MGMT 324: Personnel Management	
MGMT 483: Wage and Salary Administration	
MGMT 485: Industrial Relations and Public Policy	

Additional course work to complete the twenty-four (24) credit obligation for this major is recommended by the student's advisor, subject to approval by the Department of Administrative Sciences Chair. Such course work could include:

MGMT	322:	Business Information Systems
MGMT	445:	Management Seminar
BSAD	437:	International Business Seminar

INDUSTRIAL RELATIONS (BSBA)

The following courses are required:

MGMT	324:	Personnel Management	3 cr.
ECON	351:	Labor Economics	3 cr.
MGMT	482:	Collective Bargaining	3 cr.
MGMT	483:	Wage and Salary Administration	3 cr.
MGMT	485:	Industrial Relations and Public Policy	3 cr.

Two courses from the following:

HIST	299:	History of American Labor	3 cr.
MGMT	321:	Organization Theory and Behavior	3 cr.
MGMT	445:	Management Seminar	3 cr.
SOC	351:	Contemporary Social Problems	3 cr.
ECON	311:	Macroeconomics Theory	3 cr.
PSY	350:	Industrial Psychology	3 cr.
BSAD	437:	International Business Seminar	3 cr.

DEPARTMENT OF ECONOMICS

Enid Dennis, Ph.D., Chair

Office: Still Hall

Telephone Extension: 2626

Professors: E. Dennis, W. Ross, Sarjit Singh, Vernon; *Associate Professors:* Balough, Fox, Sanders, Sohng, Stine, C. Yang

Students may take a major in Economics either in the College of Business Administration or the College of Arts and Sciences.

ECONOMICS (BSBA)

Course requirements:

The Economics Department has instituted several tracks which help students select a program to meet their interests and career goals. All tracks require ECON 311; Intermediate Macroeconomic Theory. A student may choose additional Economics courses from the following tracks.

- a. Monetary Economics Track (15 cr. hrs.)
ECON 370: Money and Banking
ECON 371: Public Finance
ECON 361: International Economic Relations
Select two additional Economics courses or one additional Economics course and FIN 476: Securities Analysis.
- b. Quantitative Economics Track (15 cr. hrs.)
ECON 410: Managerial Economics
ECON 423: Statistical Tools for Quantitative Analysis
ECON 470: Business Cycles and Forecasting
Select two additional Economics courses.
- c. International Economics Track (15 cr. hrs.)
ECON 313: Comparative Economic Systems
ECON 361: International Economic Relations
MGMT 426: International Business
Select two additional Economics courses.

- d. Urban and Public Affairs Track (15 cr. hrs.)
 ECON 314: Urban and Regional Economics
 ECON 340: Government Regulations
 ECON 351: Labor Economics
 Select two additional Economics courses or one additional Economics course and PS 375: Public Administration.
- e. General Economics Track (15 cr. hrs.)
 Five courses in Economics to be selected in consultation with and approved by the student's advisor.

DEPARTMENT OF FINANCE

Richard Hawk, M.B.A., Chair

Office: 336 Still Hall
 Telephone extension: 2626

Professors: Yeane, Stuhldreher; *Associate Professors:* Eicher;
Assistant Professors: Bish, Eichlin, Hawk, W. Henry, Swidzinski;
Instructors: Hall, Gray, Reed

FINANCE (BSBA)

The following courses are required:

FIN	373:	Fundamentals of Insurance	3 credits
FIN	375:	Management of Fin. Institutions	3 credits
FIN	376:	Security Markets	3 credits
FIN	471:	Financial Problems	3 credits

Three courses from the following:

FIN	374:	Property and Casualty Insurance
FIN	473:	Retirement and Estate Planning
FIN	476:	Security Analysis
FIN	480:	Multinational Financial Management
RE	371:	Real Estate Finance
RE	471:	Real Estate Investment Analysis
ECON	370:	Money and Banking
ECON	371:	Public Finance

REAL ESTATE (BSBA)

The following courses are required:

RE	370:	Real Estate Fundamentals	3 credits
RE	372:	Real Estate Law	3 credits
RE	373:	Real Estate Finance	3 credits
RE	471:	Real Estate Investment Analysis	3 credits

BROKERAGE TRACK

Three courses from the following: 9 credits

RE	371:	Real Estate Practice
RE	374:	Brokerage of Real Estate
RE	470:	Appraisal of Real Estate
BSAD	241:	Legal Environment II

INVESTMENT ANALYSIS TRACK

Three courses from the following: 9 credits

RE	470:	Appraisal of Real Estate
FIN	376:	Security Markets
FIN	476:	Security Analysis
ECON	314:	Urban and Regional Economics

All courses with an RE designation have been approved by the Pennsylvania Real Estate Commission for three credits each toward meeting the education requirements for real estate brokerage licensing.

RE 370 and 371 are the only courses applicable toward meeting requirements of the salesperson licensing examination.

DEPARTMENT OF MARKETING

Joseph Grunenwald, DBA, Chair

Office: Still Hall

Telephone extension: 2626

Professors: Grunenwald, Kim, K. Traynor; *Associate Professor:* W. Crawford; *Assistant Professors:* L. Felicetti, K. Stewart

MARKETING (BSBA)

The following courses are required:

MKTG	461:	Market Research	3 credits
MKTG	465:	Marketing Problems	3 credits

Two of the following: 6 credits

MKTG	361:	Marketing Management
MKTG	363:	Advertising Management
MKTG	468:	Consumer Behavior

Two of the following: 6 credits

MKTG	362:	Retailing Management
MKTG	364:	Salesmanship
MKTG	365:	Industrial Marketing
MKTG	366:	Physical Distribution Management
MKTG	460:	Sales Management
MKTG	361,	363, 468, listed above

In addition each marketing major will be required to take one approved business or economics course with international content.
Recommended Marketing course:

MKTG	469:	International Marketing	3 credits
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COLLEGE OF COMMUNICATION AND COMPUTER INFORMATION SCIENCE

James H. Cole, Ed.D., Dean

Office: Becker Hall
Telephone Extension: 2328

DEPARTMENT OF COMMUNICATION

Patricia Marini, MA, Chair

Office: Becker Hall
Telephone Extension: 2245

Professors: Cole, Felicetti, Larson, Metcalf; *Associate Professors:* Baker, Barlow, Fueg, Marini, Pfaff, Siddiqui; *Assistant Professors:* Lloyd

The Department of Communication offers a broadly-based program leading to the Bachelor of Science Degree in Communication. It is interdisciplinary in nature, requiring courses from English, Speech Communication, Business, Philosophy, and the Department of Communication.

The program is designed to develop the student's ability to write and speak effectively, and to use other media -- radio, television, film, photography, and the print media -- for specific purposes. Required courses in business, computer science, and logic provide a basic understanding of organizational behavior and skills necessary to function effectively in a variety of organizations. Electives may be selected from any academic area of the university. If desired, they may be concentrated to provide additional training for specific career goals.

Graduates have assumed positions in business, industry, governmental agencies and non-profit organizations in public relations, advertising, radio and television broadcasting, employee training and publication functions.

Students majoring in Communication must complete 48 credits in General Education, which includes Modes of Communication, Natural Science and Mathematics, Social Sciences, Humanities, and Personal Development and Life Skills. In addition to general education, major, and elective course requirements, students are required to participate a minimum of two semesters in co-curricular media activities to consist of one broadcast-oriented organization and one print-oriented organization.

Broadcast organizations are Cable TV-5, WCUC-FM non-commercial FM radio station, and WCCB carrier current AM radio station. Print organizations are The Clarion Call campus newspaper and The Sequelle yearbook. Students who wish to fulfill this requirement by working for another radio or television station or newspaper may do so with agreement of both academic advisor and employer. The student is expected to own or have access to a 35mm camera with variable focus and f-stop, and a built-in or separate light meter. Guidance in selecting an appropriate camera will be provided after the student has entered the program.

COMMUNICATION, B.S.

61 credits

Required courses: ENG 200, 201, 206; SCT 113, 115, or 264, 300 or MGMT 321; MGMT 320; ECON 211; CIS 110; PHIL 111; COMM 100, 152, 171, 251, 271, 351, 352, 451, 452.

DEPARTMENT OF COMPUTER INFORMATION SCIENCE

James Holden, M.Ed., Chair

Office: 106 Becker Hall

Telephone Extension: 2643

Professors: D. Brown, E. Ross; *Associate Professors:* C. Dean, T. Schaeffer; *Assistant Professors:* M. Barrett, J. Holden, D. Kahle, A. Lege, S. Traynor; *Adjunct Faculty from Mathematics, Chemistry, and the Computer Center*

The Department of Computer Information Science offers two concentrations leading to the Bachelor of Science Degree in Computer Science. One of these is the concentration in Computer Application and Information Systems. It prepares students for careers in application programming and system analysis. Major emphasis is placed on the COBOL programming language and on the principles necessary for computer usage in commercial, industrial, and governmental environments. One hundred and thirty-two semester hours of credit are required for completion of this concentration.

The other concentration is a Computer Science curriculum preparing students for careers in systems programming, computer systems analysis, and computer system management. It places heavy emphasis on mathematical foundations of computation and principles of data organization and computer system software. The concentration in Computer Science requires one hundred and twenty-eight semester hours of credit.

Students in both concentrations are strongly encouraged to enroll in computer course work outside their major area. The Department's emphasis is on practical computer application and the programs of study are designed with this as a primary goal.

Clarion University of Pennsylvania is unique among the fourteen state institutions in terms of the depth and diversity of its computing facilities. The Still Business Administration Building houses the main campus computing systems, ONE VAX 11-780 administrative system and a VAX 11-785 which is totally dedicated to academic usage. Access facilities to the academic system are maintained in Still Hall, in Pierce Hall, and in Becker Hall. Becker Hall, where the classrooms and offices of the Department of Computer Information Science are located, houses a substantial number of terminals and a six hundred line per minute printer, all connected to the academic system. In addition, two minicomputers utilizing a full Unix operating system and providing interactive terminal access for more than forty users are available for student usage in Becker Hall. More than 20 microcomputer systems are also located in the Becker Hall laboratory. Most of these are IBM PCs and are equipped with dual disk drives, printers and current productivity software including WORDSTAR, LOTUS 1,2,3 AND R:BASE 5000. Clarion is committed to providing these computer resources required to support the computing program. All major programming languages are available on the University's systems.

Experience has shown that communication and mathematical skills are fundamental to professional success in computer related areas. The Department feels that SAT scores can be a valuable tool in predicting successful acquisition of these skills. Although the CIS Department accepts all students admitted to Clarion University, it is highly recommended that students considering the C.A.I.S. concentration have achieved SAT scores of at least 480 verbal and 450 in mathematics. Similarly, it is recommended that students concentrating in Computer Science should have achieved minimal scores of 450 verbal and 500 mathematics.

The CIS Department subscribes totally to the Students' Rights and Regulations handbook of Clarion University. Specifically, the Department maintains a document describing its interpretation of the handbook's statements concerning academic dishonesty and misuse of authorized identification as they relate to computer usage. This document is posted in the academic access areas and it is expected that all students utilizing campus computing facilities will be familiar with it.

REQUIRED COURSES:

C.A.I.S. concentration:

ECON 211, 212, MATH 131, 232, ACTG 251, 252, BSAD 240; ECON 221, 222, MGMT 320, MKTG 360, FIN 370, MGMT 425, CIS 120, 223, 224, 301, 402, 403.

Computer Science concentration:

MATH 270, 271, MATH/CIS 240, MATH 370, CIS 163, 164, 253, 254, 255, 350, 355, 356, 357, 460, 469.

OTHER REQUIREMENTS:

Students concentrating in Computer Science are required to earn a 2.0 quality point average in the major. Prerequisite courses may be passed with a grade of "C" before the student may enroll in subsequent courses.

SUGGESTED COURSE SEQUENCING:

C.A.I.S. concentration:

CIS 120, 223, and 224 should be taken in sequence during the first two years. CIS 151, 211, and 212, if elected, should be taken in the first two years, but after CIS 120, 301, 401, 402 and 403 should be taken during the last two years. Optional electives for the last two years are CIS 253, 302, and 462.

Computer Science concentration:

CIS 163 and 164 should be taken in sequence. CIS 253 and 254 may be taken simultaneously or in sequence, but neither should be taken until the completion of CIS 164. All other courses should generally be taken using the rule of two hundred level courses in the sophomore year, three hundred level courses in the junior year, and four hundred level courses in the senior year.

Computer Science Course Cycle:

Fall Semester

CIS 163
CIS 357
CIS 253
CIS 254
CIS 355
CIS 240

Spring Semester

CIS 164
CIS 255
CIS 350
CIS 356
CIS 469
CIS 460

COLLEGE OF EDUCATION AND HUMAN SERVICES

Dr. Thomas J. Matczynski, Ph.D., Dean

Office: Stevens Hall
Telephone Extension: 2146

The College of Education and Human Services offers programs to prepare professional educators and other human services personnel.

Seven specialized curricula are offered in professional education: early childhood education, elementary education, library science, music education, secondary education, special education, and speech pathology and audiology. An additional certification program is available in environmental education. Each teacher education curriculum is designed to meet the graduation requirements of the university, the certification requirements of the state, and the accreditation standards of various professional groups. In the human services field, programs are offered in habilitative sciences and speech and hearing science at the bachelor degree level, and in habilitative services at the associate degree level. All programs involve classroom, laboratory, and practicum experience.

TEACHER EDUCATION

Role Statement

In its teacher preparation program Clarion is committed to educating its students to play six important roles in the educational process.

First, the teacher serves as a model of the academic cultures. In this role the teacher is expected to be competent in standard English in both its written and oral forms; to be conversant with the major domains of knowledge as they are reflected in the humanities, the social sciences, and the natural sciences and mathematics; to be committed to scholarship and intelligence.

Second, the teacher serves as a resource for a school and community in a particular area of expertise. In this role the teacher is expected to display comprehensive and extensive knowledge in an area of specialization; to demonstrate ability to elaborate upon content, simplify material, and integrate knowledge; and to be sufficiently grounded in the basic concepts, principles, and methods of operation associated with that specialization to be able to pursue advanced study.

Third, the teacher serves as a facilitator of learning for his or her students. In this role the teacher is expected to establish both short and

long-range goals for student teaching, to provide sound and effective learning experiences, to utilize a variety of assessment techniques, to establish a positive learning environment, to utilize available time and materials effectively, and to apply learning theory to classroom practices.

Fourth, the teacher serves as a facilitator of democratic attitudes. In this role the teacher is expected to respect students and individuals and to be accepting of them in their differences, to help them develop wholesome self-images, to support their creativity and originality, and to exhibit an awareness of and appreciation for the contribution that men and women from various racial and ethnic backgrounds have made to the human condition.

Fifth, the teacher serves as a professional educator. In this role the teacher is expected to serve as a responsible member of a school's professional staff, playing leadership and supportive roles as appropriate; to demonstrate high ethical standards in working with students, parents, and colleagues; to participate in the shaping of educational policies for the school and the teaching profession; and to be committed to continuing personal and professional development.

Sixth, the teacher serves as his or her own role definer. In this role the teacher is expected to identify, develop, and articulate his or her own truths about education, teaching and learning, schools, and the role that a teacher should play in the educational community.

Certification

Students who complete one of the teacher education curricula at Clarion and who are awarded a baccalaureate degree are qualified for the Pennsylvania Instructional I Certificate, valid for six years of teaching. Applications for the certificate must be made by the student and the certificate issued before graduates may teach in the public schools of Pennsylvania. **Since the recommendation for certification is based upon program requirements in effect when the application is filed, students are urged to do this during the semester in which they plan to graduate.** Applications are available in the Office of Field Services. Students should be aware that Act 24 of 1985 requires that prospective employees of public and private schools present evidence from the State Police or the Federal Bureau of Investigation that they have no criminal record.

Any certificate may be extended to include other teaching fields by completing approved programs in those areas. Students not enrolled in a program leading to a Bachelor of Science in Education degree can make application for teacher certification by obtaining admission to and completing one of the university's approved programs in teacher education. For further information, consult the Dean's office, College of Education and Human Services.

HUMAN SERVICES

Programs in the Human Services area provide students with the professional preparation to work with children, adolescents, and adults in institutional and community settings. Students in these programs are prepared to assist individuals who may experience a range of physical or mental handicaps. They develop their skills in classroom, clinical and field settings at the university and with cooperating agencies and institutions. Completion of their degree program should help students qualify for employment in a wide variety of roles based on the training they receive in the various Human Services programs within the college. Their responsibility will be to help persons acquire those competencies necessary for independent living.

General Requirements for Teacher Education and Human Services

GENERAL EDUCATION

To qualify for graduation, each student must satisfy the general education requirement of the university, which specifies the completion of 48 hours of credit in accord with the distribution presented on pages 87-89.

PROFESSIONAL EDUCATION

Candidates for certification in a teaching field must complete the professional and special requirements for that field, as indicated below:

Early Childhood Education, see page 143.

Elementary Education, see pages 141-142.

Library Science Education, see pages 180-181.

Music Education, see pages 148-152.

Secondary Education, see pages 153-165.

Special Education, see pages 166-173.

Speech Pathology and Audiology, see pages 173-176.

TEACHER EDUCATION SELECTION AND RETENTION STANDARDS

I. Certification Requirements

- A. Complete all program requirements of the Teacher Certification program at Clarion University.
- B. Pass appropriate Pennsylvania Department of Education examinations in:
 - 1. General Education
 - 2. Content Area(s) of Certification
 - 3. Professional Education
 - 4. Basic Skills
- *C. Satisfy mental and physical qualifications as established by the Pennsylvania Department of Education

*Compliance with the Public School Code of 1949, as amended, Article XII, Section 1209, which in part provides that teaching certification may not be issued if the "applicant is either mentally or physically disqualified, by reason of tuberculosis or any other communicable disease or by reason of mental disorder from successful performance of the duties of a teacher."

- D. Any academic, physical, or mental deficiencies, noted at any point in the student's program, that would prevent the candidate from fulfilling the responsibilities of the certification area, must be removed before admission to a teacher certification program. Deficiencies identified after admission to the certification program must be removed before the candidate may continue in the program.

II. Certification Sequence

- A. Admission to Teacher Certification Program Requirements:
 - 1. Completion of 60 semester hours including 6-9 semester hours of introductory professional courses to be determined by the appropriate departmental faculty of the College of Education and Human Services. These introductory courses must be completed with a grade of C or better.
 - 2. Basic skill competency in written expression, oral communication, and computation as evidenced by grades of C or better in ENG 111, SCT 113, ED/CIS 217, and a mathematics course numbered higher than MATH 110. Accepted university proficiency examinations may be substituted for courses as specified in the catalog.
 - 3. A minimum quality point average of 2.5 for all courses completed.

4. Pass a Pennsylvania Department of Education competency test of basic skills.
 - B. Admission to Student Teaching
 1. Satisfactory standing in relation to all admission and retention requirements of the University and the College of Education and Human Services.
 2. Completion of at least 90 semester hours of university credit.
 3. Satisfactory completion of all required professional courses as determined by the appropriate departmental faculty of the College of Education and Human Services. These courses must be completed with a grade of C or better.
 4. A minimum cumulative quality point average of 2.5 for all course work.
 - C. Graduation requirements
 1. Fulfillment of all university standards for graduation.
 2. A minimum grade of C in each student teaching experience.
 3. A minimum cumulative quality point average of 2.5 for all course work.
- III. Procedures: Students are responsible for:
- A. Seeing that application forms are completed for:
 1. Admission to Teacher Certification
 2. Admission to Student Teaching
 3. Graduation from the University
 4. Certification from the Commonwealth
 - B. Meeting with their advisors at each of these checkpoints for conferencing and to obtain the appropriate forms.
 - C. Arranging for any tests needed to comply with the Public School Code of 1949, as amended, Article XII Section 1209.
- IV. Transfer Students
- Each transfer student must follow the selection and retention standards of the College of Education and Human Services. Transcripts will be evaluated by the College Dean and any deficiencies will be noted. The transfer student and Dean will develop an individual plan to remove any deficiencies identified. Once deficiencies are removed, the student may be admitted to teacher certification.
- V. Petitions Procedure
- The faculty of the College of Education and Human Services recognizes that there may be times when special circumstances arise which may legitimately justify the waiver of certain policies and/or standards. Students who have failed to meet the policies and/or standards because of unusual and extenuating circumstances are permitted to file a petition with the College.

Petition forms are available in the Office of the Dean. All petitions must be written, must be addressed to the Dean, and must be filed prior to the last five weeks of classes. The Dean will submit each petition to the College-Wide Petitions Committee for review and recommendation. The Committee will make a recommendation to the Dean based on a majority decision. The Dean will take this recommendation under advisement and contact the student in writing regarding the decision, with copies to the Petitions Committee and the student's academic advisor.

APPLICATION PROCEDURES FOR STUDENT TEACHING

1. Read the conditions for assignments and qualifications for student teaching carefully.
2. Take this information and form entitled Application for Student Teaching to your advisor.
3. Complete ALL sections of the form with the advisor.
4. Return the completed Application for Student Teaching Form to the Director's Office.
5. Questions concerning assignment should be presented to the Director, Office of Field Services

CONDITIONS FOR ASSIGNMENT

1. Applicants will follow the UNIVERSITY CALENDAR for their entire assignment. (Exception: Fall semester student teachers will begin their assignments according to the public school calendar.)
2. Applicants will not be assigned to do student teaching in schools which they have formerly attended as grade or high school pupils, except under special conditions.
3. Applicants will be assigned to selected school clusters by the Office of Field Services.
4. Applicant's assignments will be for five days a week -- for a full semester.
5. Applicants will be encouraged to reside in the community to which they are assigned. However, student teachers will be responsible for their own travel and rooming arrangements.
6. Tentative student teaching assignments for fall will be made before spring break; tentative student teaching assignments for spring will be made before Thanksgiving break.
7. Applicants will report any changes in status or plans to the Director, Office of Field Services, whenever they occur.
8. All qualifications must be fulfilled prior to the start of the student teaching.

DEPARTMENT OF EDUCATION

Earl R. Siler, Ed.D., Chair

Professors: Baldwin, Moorhouse, Siler, J. Smith, P. Smith, Zaeske;
Associate Professors: Battista, Kenemuth, Klindienst, McLaughlin,
Palaggo, Yoho; *Assistant Professors:* L. Brown, Stalker;

The Education Department offers baccalaureate programs leading to certification in Elementary Education (K-6) and Early Childhood Education (N-3). In addition, dual certification programs* (ELED/ECH, ELED/SPED, and ELED/LS) are offered. An endorsement to teach environmental education may be acquired; a program in coaching is also available. The Department is also responsible for graduate programs in Elementary Education and Reading.

*Dual Certification Programs: Students seeking dual certification should be aware that an extra semester of course work is needed to complete the requirements for both certification areas. This could be accomplished by attending two or three summer sessions.

ELEMENTARY EDUCATION

Knowledge in all content areas of the elementary school curriculum, pedagogical and human relation skills, as well as the philosophical and psychological foundations of education are developed through a combination of theoretical studies and field experiences.

Program Requirements

GENERAL EDUCATION

The elementary major should fulfill the general education distribution requirements noted on pages 87-89.

PROFESSIONAL COMPETENCY

The elementary education major is expected to show competency in the following content areas: biology, chemistry, computer science, earth science, English composition, humanities, humanities elective, HPE elementary activities, introduction to the English language, mathematics, music, non-western culture, physics, political science, social science elective, speech, and U.S. history.

PROFESSIONAL EDUCATION

The following courses are required of all elementary majors:

			c.h.	s.h.
ART	190	Teaching Art in the Elementary Grades	3	3
ECH	321	Child Development	3	3
ED	110	Introduction to Education	3	3
ED	224	Educational Evaluation	3	3
ED	225	Multicultural Education	1	1
ED	226	Basic Teaching Skills	2	2
*ED	227	Classroom Management	3	3
ED	322	Educational Psychology	3	3
*ED	427	Exceptionalities in the Regular Classroom	3	3
*ELED	323	Teaching of Reading	3	3
*ELED	324	Teaching of Elementary School Mathematics	3	3
*ELED	325	Teaching of Elementary School Soc.Studies	3	3
*ELED	326	Reading Problems in the Elementary School	3	3
*ELED	330	Communication Arts in the Elementary School	2	2
*ELED	331	Children's Literature	3	3
*ELED	424	Elementary Student Teaching		12
*HPE	323	Modern Curriculum and Methods	1	1
MUS	134	Basic Music Methods	2	2
*SCED	322	Teaching of Elementary Science	3	3
SPA	455	Speech, Language and Hearing Problems in the Schools	3	3

*Courses so designed are part of two professional blocks which will be taken during the junior and/or senior years. Each of these blocks will include classroom participation in surrounding schools.

NOTE: Students electing dual certification are required to take 6 semester hours of ELED 424: Elementary Student Teaching and 6 semester hours of student teaching in the other areas of certification.

Academic Concentrations for Elementary Majors

Elementary majors who choose not to enter a dual certification program must meet with their advisors to plan a concentration of courses selected from the humanities, natural science, the social sciences and mathematics/computer science.

EARLY CHILDHOOD EDUCATION

The program has a broad-based theoretical approach which includes Bruner, Dewey, Erickson, Piaget, Rogers, Maslow, Montessori and Skinner. Education of the child is approached from a holistic perspective. Intellectual, social, emotional and psychomotor development are all considered essential to the learning process. Continuing opportunities are provided students to plan, implement and evaluate learning experiences with young children two-to-eight years of age. The process enables future teacher to integrate the theoretical concepts of child development with the practical concerns of the classroom environment. The structure of the program requires the student to assess and develop personal and professional competencies through interaction with professionals in Early Childhood Education.

Program Requirements

GENERAL EDUCATION

To qualify for graduation, each student must satisfy the general distribution requirements noted on pages 87-89.

PROFESSIONAL EDUCATION

The following courses are required of all Early Childhood education majors:

			c.h.	s h
ECH	121	Child Development	3	3
ECH	231	Creative Activities in Music and Art	3	3
ECH	235	Classroom Participation and Assessment	3	3
ECH	323	Early Childhood Communication Processes	3	3
ECH	324	Mathematics Learning Experiences for Early Childhood	3	3
ECH	333	Developmental Programs for Infants and Toddlers	3	3
ECH	334	Early Childhood Supervision	3	3
ECH	335	Early Childhood Curriculum	3	3
ECH	401	Creative Response to Conflict	3	3
ECH	420	Incidental Learning	3	3
ECH	424	Early Childhood Student Teaching		12
ED	110	Introduction to Education	3	3
ED	224	Educational Evaluation	3	3
ED	225	Multicultural Education	1	1
ED	226	Basic Teaching Skills	2	2
ED	322	Educational Psychology	3	3
ED	427	Exceptionalities in the Regular Classroom	3	3
ELED	330	Communication Arts in Elem School	2	2
ELED	331	Children's Literature	3	3
HPE	410	Psychomotor Development in Early Childhood	3	3
SCED	322	Teaching of Elementary Science	3	3
SPA	455	Speech, Language and Hearing Problems in the Schools	3	3

In addition Early Childhood majors must take 10 credits of electives approved by the advisor.

ENVIRONMENTAL EDUCATION

Sponsored by an interdisciplinary committee, the curriculum in environmental education, open only to students who are enrolled in or have completed a teacher education program, leads to an endorsement on any instructional certificate and prepares teacher-educators to develop and implement in-school and outdoor environmental education programs in both elementary and secondary schools. Since the program is competency based, the total semester hours needed to complete it will depend upon the student, his or her major field or study, and outside work experience. Students applying for admission in their freshmen year may normally expect to complete the program within the usual number of hours required for graduation.

Graduate students in some areas may also complete as part of Master's program an endorsement to their instructional certificate in Environmental Education by selecting appropriate courses under advisement.

Application for admission to the program is through the Chairman of the Environmental Education Committee.

REQUIRED COURSES

			c.h	s h
ENVR	401	Environmental Problems in Society	3	3
GEOG	254	Conservation of Natural Resources	3	3
ED	401	Methods in Environmental Education	3	3
ELED or				
ED	424	Student Teaching	Variable Credit	

REQUIRED AREAS OF STUDY

In addition to the courses listed above, students need additional experiences and competencies in field studies, nature oriented studies; and man oriented studies to further their understanding of the relationships between human institutions and value systems and their supporting environment. A listing of courses appropriate to these areas can be obtained from the Dean, College of Education and Human Services.

DEPARTMENT OF HEALTH AND PHYSICAL EDUCATION

Albert A. Jacks, Jr., M.Ed., Chair

Professors: Bubb, Lignelli, Taylor; *Associate Professors:* Baschnagel, Jacks, D. Leas, Leonard, Pae, Ruslavage, Shope, Sobolewski; *Assistant Professors:* D. Black, Davis, English, R. Leas, Miller, Oleksak, Truitt-Bean

Through its general education courses and intramural program, the department provides students with extensive opportunities to develop sound health habits and life-long skills in a variety of sports and other physical activities. Although the department does not offer any programs leading to the bachelor's degree, it does offer an athletic coaching program.

ACTIVITY AND RECREATION COURSES

INDIVIDUAL SPORTS AND ACTIVITIES

HPE	140	Archery	1
HPE	141	Badminton	1
HPE	142	Bowling	1
HPE	143	Golf	1
HPE	144	Handball and Racquetball (men's rules)	1
HPE	145	Racquetball (women's rules)	1
HPE	146	Cross Country Skiing	1
HPE	147	Beginning Tennis	1
HPE	148	Wrestling	1
HPE	150	Canoeing	1
HPE	191	Camping and Outdoor Recreation	2
HPE	247	Intermediate Tennis	1

TEAM SPORTS AND ACTIVITIES

HPE	161	Basketball (men's rules)	1
HPE	162	Basketball (women's rules)	1
HPE	163	Volleyball (men's rules)	1
HPE	164	Volleyball (Women's rules)	1

AQUATIC COURSES

HPE	131	Beginning Swimming	1
HPE	230	Senior Life Saving	1
HPE	231	Intermediate Swimming	1
HPE	233	Springboard Diving	1
HPE	330	Water Safety Instructor	1
HPE	332	Advanced Aquatics	1

DANCE COURSES

HPE	171	Modern Dance	1
HPE	173	Aerobic Dancing I	1
HPE	273	Aerobic Dancing II	1

HEALTH AND FIRST AID COURSES

HPE	111	Health Education	2
HPE*	314	Cardio Pulmonary Resuscitation	1
HPE	317	First Aid Safety	2

PHYSICAL FITNESS COURSES

HPE	181	Adapted Physical Education	1
HPE	182	Posture and Body Mechanics	1
HPE	185	Physical Fitness and Conditioning	1
HPE	186	Physical Fitness Through Weight Lifting	1

*Required for the Athletic Coaching Program

SPECIALIZED COURSES

Elective Theory and Technique of Coaching Individual Sports

HPE	343	Theory and Technique of Coaching Golf	1
HPE	344	Theory and Technique of Coaching Track & Field	2
HPE	345	Theory and Technique of Coaching Swimming	2
HPE	346	Theory and Technique of Coaching Gymnastics	2
HPE	347	Theory and Technique of Coaching Tennis	1
HPE	348	Theory and Technique of Coaching Wrestling	2

Elective Theory and Technique of Coaching Team Sports

HPE	351	Theory and Technique of Coaching Basketball	2
HPE	352	Theory and Technique of Coaching Baseball	2
HPE	353	Theory and Technique of Coaching Volleyball	2
HPE	354	Theory and Technique of Coaching Football	2

Required Coaching Courses

HPE	314	Cardio Pulmonary Resuscitation	1
HPE	406	Athletic Injuries	3
HPE	407	Physiological Foundations of Coaching	3
HPE	408	Principles and Problems of Athletic Coaching	3
HPE	409	Kinesiological Foundations of Coaching	3

Elementary Major Courses

HPE	223	Physical Education for Elementary Majors	1
HPE	323	Modern Curriculum and Methods in Elementary Physical Education	1
HPE	326	Adapted Physical Education for the Elementary School	3

**ATHLETIC COACHING PROGRAM --
19 semester hours**

The athletic coaching program* is established for those who intend to coach in interschool athletic programs but do not have a degree in physical education. Students who complete the Athletic Coaching Program successfully are issued a letter of verification.

The minimum requirement for this program is 19 credit hours, 13 of which are required: HPE 314, 406, 407, 408, and 409. The other 6 credit hours may be selected from the Theory and Technique of Coaching courses: HPE 343, 344, 345, 346, 347, 348, 351, 352, 353, or 354.

The university grants a maximum of 4 credits in HPE for active military service of 6 months or more with honorable discharge or continued reserve status. Credit is normally given for HPE 111, (2 credits) and 2 HPE activity courses of 1 credit each. To assure that the credit is granted, students should bring an honorable discharge document to the Office of the Registrar, Carrier Administration Building.

*Not a Public School Certification field.

LIBRARY SCIENCE

Information of certification as a school librarian in Pennsylvania is included under the College of Library Science. See pages 179-181.

MUSIC EDUCATION

The curriculum for majors in music education at Clarion, leading to the degree Bachelor of Science in Education Degree in Music Education, combines a broad requirement in general education with advanced study in theory, history and literature of music, applied music, specialized courses in music education, and participation in performing organizations. The emphasis of the program is two-fold.

- A. The achievement of significant musical understanding and ability: *Musicianship.*
- B. The development of skills and techniques necessary for the effective communication of music understanding and ability to others: *Teacher Ability.*

The purpose of this program is to prepare prospective public school teachers specializing in music education, with certification in all of the following areas:

- A. Elementary music education, from kindergarten through the sixth grade, vocal and instrumental.
- B. Junior high school music programs, including general music, instrumental and vocal classes.
- C. Secondary school music programs, including all vocal and instrumental activities, general music, and elective academic courses.

PROGRAM REQUIREMENTS

GENERAL EDUCATION

The general education distribution for all students in the college is presented on pages 87-89. Teacher Education Selection and Retention Standards are listed on pages 138-140.

PROFESSIONAL EDUCATION

			Sem	hrs
ED	110	Intro to Education	3	3
ED	322	Educational Psychology	3	3
ED	427	Exceptionalities in the Regular Classroom	3	3
MUS	333	Elementary Music Methods	3	3
MUS	334	Junior High and Secondary Music Methods	3	3
MUS	362	Instrumental Methods	2	2
MUS	363	Vocal Methods	2	2
ED	432	Student Teaching	12	12
Total				31

AREA OF SPECIALIZATION

MUS	135	Theory of Music I	4
MUS	136	Theory of Music II	4
MUS	235	Theory of Music III	4
MUS	236	Theory of Music IV	4
MUS	151	History & Literature of Music I	3
MUS	152	History & Literature of Music II	3
MUS	251	History & Literature of Music III	3
MUS	252	History & Literature of Music IV	3
MUS	365	Conducting I	2
MUS	366	Conducting II	2
MUS	367	Orchestration	2

KEYBOARD AND VOICE PROFICIENCY

PIANO (required of all but piano majors*)

MUS	160	Piano Class I	1
MUS	161	Piano Class II	1
MUS	171	Piano	1

VOICE (required of all but voice majors*)

MUS	162	Voice Class I	1
MUS	163	Voice Class II	1

*Students whose applied area is Voice and Piano will substitute an approved music elective (3 credits)

PIANO COMPETENCY TEST

The Piano Competency Test is required of all music education majors in order to qualify for student teaching. Students are expected to complete the requirements and take the competency test by the end of the sophomore year in order to qualify for the admission into the teacher certification program and also to pursue the student teaching experience.

INSTRUMENTAL TECHNIQUES Minimum of 5

One course for each family of instruments is required.

MUS	280	I:	Violin, Viola
MUS	281	II:	Cello, String Bass
MUS	282	III:	Flute, Oboe, Saxophone
MUS	283	IV:	Clarinet, Bassoon
MUS	284	V:	Trumpet, French Horn
MUS	285	VI:	Trombone, Baritone Horn, Tuba
MUS	286	VII:	Percussion

APPLIED FIELD OF PERFORMANCE 7

Instrument - (MUS 164, 165, 166, 167, 168, 169, or 170): Piano (MUS 171): Voice (MUS 172): Organ (MUS 173)

PERFORMING ORGANIZATIONS

Seven semesters of participation is required. Option 1 credit per semester may be counted toward graduation. No more than 8 credits can be counted toward graduation requirements.

Total credits in specialization sequence 51-52

ATTENDANCE AT RECITALS

Students pursuing degree programs are required to attend the biweekly student recital series for seven to eight semesters as an extension of their curricular and performance activities. Election of MUS 300, section 1 satisfies this requirement. All students are strongly encouraged to perform.

JUNIOR/SENIOR RECITAL

For students in the B.S. in Education Degree in Music Education program, a junior or senior recital is optional. Students wishing to perform a junior or senior recital must audition in the spring semester preceding the academic year in which the recital is to be scheduled. Students who successfully complete the audition process should elect MUS 300, section 2 and 3 respectively, to receive credit for this optional elective.

TYPICAL PROGRAM IN MUSIC EDUCATION

Sample four-year curriculum for students whose field of performance is instrumental. The curriculum for students whose field of performance is piano or voice is similar. **MUS 300, section 1 - Recitals** should be elected for each semester.

1ST SEMESTER: 16 s.h.

					s h
Gen. Ed. requirements	MUS	135	Theory of Music I	4	
or Electives			Applied Music	1	
9	MUS	160	*Piano Class I	1	
9			**Inst Tech	1	
			***Performing Org.	0-1	
				7-8	

2ND SEMESTER: 17 or 18 s.h.

Gen. Ed. requirements	MUS	136	Theory of Music II	4	
or Electives			Applied Music	1	
9	MUS	161	*Piano Class II	1	
HPE Physical Education			**Inst Tech	1	
1			***Performing Org.	0-1	
10				7-8	

3RD SEMESTER: 17 or 18 s.h.

Gen. Ed. requirements	MUS	235	Theory of Music III	4	
or Electives	MUS	151	His. & Lit. of Mus. I	3	
6			Applied Music	1	
HPE Physical Education			*Piano	1	
1			**Inst Tech	1	
7			***Performing Org.	0-1	
				10-11	

4TH SEMESTER: 17 or 18 s.h.

Gen. Ed. requirements	MUS	236	Theory of Music IV	4	
or Electives	MUS	152	His. & Lit. of Mus. II	3	
3			Applied Music	1	
ED 110 Intro. to Education			**Inst Tech	1	
3			***Performing Org.	0-1	
HPE Health Education				9-10	
2					
8					

5TH SEMESTER: 18 s.h.

		Gen Ed requirements		MUS	251	His. & Lit. of Music III	3
		or Electives	2	MUS	365	Conducting I	2
ED	322	Education Psychology	3			Applied Music	1
MUS	333	Elem Mus Methods	3	MUS	162	*Voice Class I	1
MUS	363	Vocal Methods	2			**Inst Tech	1
			10			***Performing Org	0
							8

6TH SEMESTER: 18 s.h.

		Gen Ed requirements		MUS	252	His. & Lit of Mus IV	3
		or Electives	3	MUS	366	Conducting II	2
ED	427	Except in Reg Clsrm	3			Applied Music	1
MUS	334	Jr High & Sec. Mus		MUS	163	*Voice Class II	1
		Methods	3			***Performing Org	0
MUS	362	Inst Methods	2				7
			11				

7TH SEMESTER (or 8TH): 15 or 16 s.h.

		Gen Ed requirements		MUS	367	Orchestration	2
		or Electives	12			Applied Music	1
			12			***Performing Org	0-1
							3-4

8TH SEMESTER (or 7TH): 12 s.h.

ED	432	Student Teaching	12
			12

Total credits required for graduation: 130-131

*Students whose applied field of performance is Voice or Piano will substitute an approved music elective

**Five out of seven Instrumental Techniques (MUS 280-286) are the minimum requirement. Each family of Instruments must be represented in the selection of Instrumental Techniques

***Participation is required; however, a student may elect a performing organization for 1 credit or no credit. No more than 8 credits can be counted toward the graduation requirement.

SECONDARY EDUCATION

John J. Chiodo, Ph.D., Coordinator

Baccalaureate programs leading to certification in secondary education (7-12) are available in biology, chemistry, communication arts, earth and space science, English, French, general science, German, mathematics, physics, Russian, social studies, and Spanish. Each program is designed to provide students with a thorough foundation in the teaching speciality and with the professional skills needed to work effectively with adolescents in learning environments.

PROGRAM REQUIREMENTS

GENERAL EDUCATION

Secondary education students fulfill the general education requirements by following the distribution noted on pages 87-89. However, within certain majors there may be slight deviations from the pattern presented and a secondary student should check with the departmental office of the discipline in which he is majoring to ascertain any variations.

PROFESSIONAL EDUCATION REQUIREMENTS

ED	110	Introduction to Education	3
ED	322	Educational Psychology	3
ED	224	Educational Evaluation	3
ED	225	Multi-Cultural Education	1
ED	226	Basic Teaching Skills	2
ED	227	Classroom Management	3
ED	333	Teaching Reading in the Secondary Content Areas	3
ED	427	Exceptionalities in Regular Classroom	3
SEC.ED	XXX	Methods in	3
SEC ED	424	Secondary Student Teaching	12

SECONDARY CERTIFICATION SPECIALIZATION

Secondary Education majors may choose areas of specialization from the approved programs below. Curriculum requirements are noted for each area of specialization.

BIOLOGY -- 50 Semester Hours

REQUIRED

			c.h.	s.h.
BIOL	153	Introductory Animal Biology	6	4
BIOL	154	Introductory Plant Biology	6	4
BIOL	201	Genetics	5	3
BIOL	202	Principles of Ecology	5	3
BIOL	203	Cell Biology	5	3
CHEM	153	General Chemistry I	6	4
CHEM	154	General Chemistry II	6	4
CHEM	254	Introductory Organic Chemistry	6	4
ED	332	Science Methods	3	3
MATH	171	Precalculus	4	4
PH	251	General Physics I	6	4
PH	252	General Physics II	6	4

ELECTIVES (Three required)

Courses taken as biology electives will be approved by the student's advisor prior to registration.

MATH 151 and 152 may be substituted for 171. In meeting general education requirements (see pages 87-89), the distribution in Natural Sciences and Mathematics may be met with supplemental courses from the field of specialization. Students should note that no more than one non-laboratory elective may be included in credits for the major.

CHEMISTRY -- 30 Semester Hours

REQUIRED

			c.h.	s.h.
CHEM	151	Chemical Principles I	4	4
*CHEM	161	Chemical Principles Lab I	3	1
CHEM	152	Chemical Principles II	4	4
*CHEM	162	Chemical Principles Lab II	3	1
CHEM	251	Organic Chemistry	3	3
*CHEM	261	Organic Chemistry Lab II	3	1
CHEM	252	Organic Chemistry II	3	3
CHEM	257	Spectroscopic Identification of Organic Compounds	3	2
*CHEM	262	Organic Chemistry Lab II	3	1
		Electives numbered 300 or above		9
CHEM	270	Chemical Information	1	1

*These laboratories must be taken concurrently with the lecture course.

ELECTIVES (Four required)

Courses taken as chemistry electives will be approved by the student's advisor prior to registration.

ADDITIONAL REQUIREMENTS

MATH	171	Precalculus	4	4
MATH	270	Calculus with Analytical Geometry I	4	4
MATH	271	Calculus with Analytical Geometry II	4	4
		and either		
PH	251	General Physics I	6	4
PH	252	General Physics II	6	4
		or		
PH	258	Introductory Physics Lecture I	5	4
PH	268	Introductory Physics Laboratory I	3	1
PH	259	Introductory Physics Lecture II	5	4
PH	269	Introductory Physics Laboratory II	3	1

Students who have taken CHEM 153 and 154 may be permitted, upon consideration of their performance, to substitute these courses for CHEM 151 and 152. A total of 30 semester hours in chemistry must be taken.

COMMUNICATION ARTS -- 42 Semester Hours

The Communication Arts program represents a new concept in the preparation of prospective teachers of communication-related subjects. It is designed to equip the teacher with the ability to help students make meaning out of their experience through the uses of language and all those behaviors, verbal and nonverbal, associated with the uses of language. The candidate may develop a program that meets his special needs and interests as a potential teacher of English, speech, drama, and other communication subjects. Successful completion of the program leads to the communication certification.

REQUIRED -- 18 credits

ENG	200	Composition and Literature
ENG	221	or 222 English Literature Survey
ENG	252	Intro. to the English Language
SCT	200	Interpersonal Communication Theory
SCT	154	Introductory Interpretation
or		
SCT	253	Introduction to the Theater
SCT	251	Voice and Articulation

CONCENTRATION -- 24 credits

24 hours in either literature or speech; or 12 hours in each of two: speech, theater, composition, literature, media, or linguistics.

ELECTIVES -- 2 credits

Courses taken as communication arts electives will be approved by the student's advisor prior to registration.

EARTH SCIENCE -- 44 Semester Hours

REQUIRED

			c.h.	s.h.
ES	150	Physical Geology	3	3
ES	200	Solar Astronomy	3	3
ES	250	Historical Geology	3	3
ES	270	Oceanography	3	3
ES	280	Meteorology	3	3
GEOG	125	Map Interpretation	3	3
BIOL	153	Introductory Animal Biology	6	4
BIOL	154	Introductory Plant Biology	6	4
or				
CHEM	153	General Chemistry I	3	3
CHEM	163	General Chemistry Lab I	3	1
CHEM	154	General Chemistry II	3	3
CHEM	164	General Chemistry Lab II	3	1
PH	251	General Physics I	6	4
PH	252	General Physics II	6	4

ELECTIVES

Courses taken as earth and space electives will be approved by the student's advisor prior to registration.

In satisfying the general education distribution, pages 87-89, it is recommended that Earth and Space majors schedule MATH 171.

For a concentration in geology, students should elect courses from:

ES	255	Landforms	ES	360:	Mineralogy (Minerals)
ES	260	Environmental Geology	ES	370:	Petrology (Rocks)
ES	350	Structural Geology	ES	375:	Sedimentation and
ES	355	Invertebrate Paleontology			Stratigraphy

For a concentration in astronomy-planetarium operation, students will elect the following:

ES	201	Stellar Astronomy	COOP	306:	Internship Planetarium
SCED	485	Planetarium Operation & Management	COMM	251:	Introduction to Images

For a broad field of Earth Science, select any course with an ES number except ES 111.

ENGLISH -- 45 Semester Hours

REQUIRED (27 credits hours)

			c h.	s h
ENG	200	Composition and Literature	3	3
ENG	482	Pedagogy of Composition	3	3
ENG	252	Intro. to the English Language	3	3
ENG	457	Intro. to Linguistics	3	3
ENG	221	English Literature: Beginning to 1800	3	3
ENG	222	English Literature: 1800 to the Present	3	3
ENG	225	American Literature: Beginning to 1860	3	3
ENG	226	American Literature from 1860 to the Present	3	3
ENG	370	Literature for Young Adults	3	3

ELECTIVES (18 credit hours)

Suggested Writing Electives (select 1);	3	3
ENG 200/201, ENG 202, ENG 203, ENG 204, ENG 206, ENG 306		
Suggested Language Electives (select 1):	33	
ENG 253, ENG 458		
Literature Electives (12 Hours - Nine of which must be taken on the 300/400 course levels)	12	12

FRENCH -- 42 Semester Hours

REQUIRED

			c h	s h
*FR	251	Intermediate French I	3	3
*FR	252	Intermediate French II	3	3

*May be omitted upon demonstration of proficiency at second year level

FR	255	French Civilization I	3	3
FR	256	French Civilization II	3	3
FR	351	Advanced Grammar & Composition	3	3

ELECTIVES

FR	253	Commercial French	3	3
FR	260	The French Short Story	3	3
FR	265	Intermediate Conversation	3	3
FR	353	Development of the French Drama	3	3
FR	354	Development of the French Novel	3	3
FR	356	Development of French Poetry	3	3
FR	358	French Thinkers	3	3
FR	360	French Canadian Writers	3	3
FR	361	Black Writers in French Literature	3	3
FR	451	Supervised Readings in French Literature	3	3

A minimum of 6 s h must be taken in courses numbered 352 or above.

Students participating in foreign study programs must complete at least six hours of French literature at Clarion, regardless of the number of credits earned abroad.

GENERAL SCIENCE -- 42 Semester Hours

A program specifically designed to prepare students to teach science at the junior high or middle school level. General Science majors are not prepared to teach specialized high school courses such as biology, chemistry, physics, or earth science. Likewise, a biology, chemistry, or physics major is not prepared to teach General Science unless his college program is broadened to include all of the required science courses of the General Science curriculum. A student who desires to teach only specialized courses should major in the specific subject area.

REQUIRED

			c h	s h
BIOL	153	Introductory Animal Biology	6	4
BIOL	154	Introductory Plant Biology	6	4
CHEM	153	General Chemistry I	6	4
CHEM	163	General Chemistry Laboratory I	3	1
CHEM	154	General Chemistry II	6	4
CHEM	164	General Chemistry Laboratory II	3	1
*PH	251	General Physics I	6	4
*PH	252	General Physics II	6	4
ES	252	Physical Geology	3	3
ES	351	Meteorology	3	3
ES	200	Solar Astronomy	3	3
SCED	460	Science Curriculum in the Middle and Junior High School	3	3

*MATH 171 is a prerequisite MATH 151 and 152 may be substituted for 171 Majors in General Science should not include BIOL 111, MATH 112, PHSC 111 and 112 and ES 111 in their general education programs (see pages 87-89) MATH 171 or 151 and 152 should be elected

Three (3) additional science courses will be needed to give a minimum of 42 credits. Students, with advisement, may elect courses from one field only, or courses may be distributed among biology, chemistry, or physics.

Since General Science is an interdisciplinary major, students must maintain a quality point average of 2.00 in each of the following fields: physics, chemistry, biology, and earth science.

A biology, chemistry, or physics major will be recommended for Instructional I certificate in General Science only if his program of courses has included, satisfactorily, all the basic courses in the General Science curriculum.

GERMAN -- 42 Semester Hours

REQUIRED

			c.h.	s.h.
**GER	251	Intermediate German I	3	3
**GER	252	Intermediate German II	3	3
GER	255	Germanic Civilization I	3	3
GER	256	Germanic Civilization II	3	3
GER	351	Advanced Grammar & Composition	3	3

**May be omitted upon demonstration of proficiency at second year level

ELECTIVES

GER	253	Scientific German	3	3
GER	254	Commercial German	3	3
GER	260	The German Short Story	3	3
GER	265	Intermediate Conversation	3	3
GER	352	Survey of German Literature through the Classical Age	3	3
GER	353	The Modern German Drama	3	3
GER	355	German Romanticism	3	3
GER	358	Classical German Literature: Goethe Schiller & Lessing	3	3
GER	361	German Lyric Poetry	3	3
GER	451	Supervised Readings in German Literature	3	3

A minimum of 6 s.h. must be taken in courses numbered 352 or above

Students participating in foreign study programs must complete at least six hours of German literature at Clarion, regardless of the number of credits earned abroad.

MATHEMATICS -- 34 Semester Hours

REQUIRED

			c h	s h
MATH	270	Calculus with Analytical Geometry I	4	4
MATH	271	Calculus with Analytical Geometry II	4	4
MATH	272	Calculus with Analytical Geometry III	4	4
MATH	240	Discrete Mathematical Structures	3	3
MATH	321	Introductory Mathematical Statistics	3	3
MATH	357	Modern Geometry	3	3
MATH	370	Linear Algebra	3	3
MATH	451	Modern Algebra I	3	3
MATH	49-	Seminar	1	1

ELECTIVES (Six credits)

Courses taken as mathematics electives will be approved by the student's advisor prior to registration.

Majors should select PH 258 and/or CHEM 151 or 153 instead of Basic PHSC 111-112. PHSC 111-112 may not count toward graduation.

Concurrent certification in Physics is possible with the election of PH 258, 259, 351, 352, 353, 354, and 370 or 453. Students admitted into both programs should substitute ED 335 for 324.

PHYSICS -- 34 Semester Hours

REQUIRED

			c.h.	s.h.
PH	258	Introductory Physics Lecture I	5	4
*PH	268	Introductory Physics Laboratory I	3	1
PH	259	Introductory Physics Lecture II	5	4
*PH	269	Introductory Physics Laboratory II	3	1
PH	351	Mechanics: Dynamics	3	3
PH	352	Electricity and Magnetism	3	3
PH	353	Modern Physics I	3	3
PH	354	Optics	3	3
**PH	370	Experimental Physics I	3-6	2
PH	370	Experimental Physics II	3-6	2
CHEM	153	General Chemistry I	3	3
*CHEM	163	General Chemistry Laboratory I	3	1
CHEM	154	General Chemistry II	3	3
*CHEM	164	General Chemistry Laboratory II	3	1

ADDITIONAL REQUIREMENTS

MATH	270	Calculus With Analytical Geometry I	4	4
MATH	271	Calculus With Analytical Geometry II	4	4
MATH	272	Calculus With Analytical Geometry III	4	4
MATH	350	Ordinary Differential Equations	3	3

Concurrent certification in Mathematics is possible with the election of MATH 451 and two approved Mathematics electives. Students admitted into both programs should take PH 460 as their Physics elective and substitute ED 335 for ED 324.

*These laboratories must be taken concurrently with lecture courses.

**Physics majors should schedule twice, for 2 credits each.

RUSSIAN -- 42 Semester Hours

REQUIRED

			c.h	s h
RUSS	251	Intermediate Russian I	3	3
RUSS	252	Intermediate Russian II	3	3
RUSS	255	Russian Civilization I	3	3
RUSS	256	Russian Civilization II	3	3
RUSS	351	Advanced Grammar & Composition	3	3

ELECTIVES

RUSS	253	Scientific Russian	3	3
RUSS	265	Intermediate Conversation	3	3
RUSS	352	Introduction to Russian Literature	3	3
RUSS	353	The Russian Drama	3	3
RUSS	354	The Russian Novel	3	3
RUSS	355	Readings in Soviet Language	3	3
RUSS	361	Dostoevsky	3	3
RUSS	451	Supervised Readings in Russian	3	3

A minimum of 6 s.h. must be taken in courses numbered 352 or above.

Students participating in Russian studies during summer in the USSR or Europe must have 2 years of Russian and at least one course in Russian Literature and Culture.

SOCIAL STUDIES - 45 Semester Hours

Selection must include courses in all seven of the following fields: anthropology, economics, geography, history, political science, psychology, and sociology.

REQUIRED COMPONENTS

	S H
American Culture	6
Behavioral Sciences	6
Economics	6
World Culture	6
Social Science Electives	6

A list of courses satisfying the above requirements may be obtained from the coordinator of the Social Studies program.

DISCIPLINE CONCENTRATION

The student must choose 18 hours of course work in one area: anthropology, economics, geography, history, political science, or sociology. Specific course listings may be located under the respective department. With authorization of the Social Studies coordinator, students can develop a behavioral science concentration.

ANTHROPOLOGY

ANTH 213, 214, 250, 251, 353, 354, 356, 357, 358, 359, 360, 361, 362, 400, 401, 402

ECONOMICS

ECON 310, 311, 312, 340, 341, 351, 361, 370, 371, 410, 453, 470, 490

GEOGRAPHY

GEOG 115, 125, 225, 250, 258, 260, 265, 275, 300, 325, 385, 400, 450

HISTORY

HIST 111, 210, 215, 254, 255, 256, 310, 311, 320, 330, 335, 340, 345, 355, 356, 357, 358, 359, 361, 362, 365, 366, 370, 375, 376, 385, 400, 439, 440, 452, 453, 454, 456, 457, 458, 461, 462, 463, 487, 471

POLITICAL SCIENCE

PS 210, 351, 352, 353, 354, 355, 365, 366, 375, 451, 452, 458.

PSYCHOLOGY

PSY 225, 230, 251, 260, 331, 340, 350, 354, 360, 452, 454, 455, 456, 458, 459, 464.

SOCIOLOGY

SOC 300, 321, 340, 351, 352, 361, 362, 363, 370, 380, 395: SW 311, 312.

SPANISH -- 42 Semester Hours

REQUIRED

			c.h.	s.h.
*SPAN	251	Intermediate Spanish I	3	3
SPAN	252	Intermediate Spanish II	3	3
SPAN	255	Hispanic Civilization I	3	3
SPAN	256	Hispanic Civilization II	3	3
SPAN	351	Advanced Grammar & Composition	3	3

*May be omitted upon demonstration of proficiency at second year level.

ELECTIVES

SPAN	253	Commercial Spanish	3	3
SPAN	260	The Hispanic Short Story	3	3
SPAN	265	Intermediate Conversation	3	3
SPAN	352	Introduction to Spanish Literature	3	3
SPAN	353	The Modern Spanish Drama	3	3
SPAN	354	The Modern Spanish Novel	3	3
SPAN	355	The "Generation of 1898"	3	3
SPAN	360	Survey of Spanish American Literature	3	3
SPAN	451	Supervised Readings in Hispanic Literature	3	3

A minimum of 6 s.h. must be taken in courses numbered 352 or above.

Students participating in foreign study programs must complete at least six hours of Spanish or Spanish-American literature at Clarion, regardless of the number of credits earned abroad.

DEPARTMENT OF SPECIAL EDUCATION

Louis E. Gurecka, M.S., Chair

Professors: Huwar, Kern, Schreffler, Shirey, Vayda; *Associate Professors:* Dunkle; *Assistant Professors:* Gurecka, K. Smith; *Part-Time Instructor:* Rexford

The Special Education curriculum is a competency-based program which has identified specific professional competencies regarded as essential for performance as a diagnostic/prescriptive teacher of children who have special needs. Some of these competencies are acquired through the use of instructional modules which detail the objective(s) to be achieved and identify the instructional materials and processes which the student may employ. The instructional modules are in the form of learning packets, or self-directed study guides, which the student may use independent of the university instructor and/or classroom. They have the characteristics of individualization, making it possible for students to proceed at their own pace according to individual abilities and initiative.

Human relations skills-training is presented through a series of sensitizing exercises which focus upon fundamental social interactions among teachers, students, administrators, and parents. These crucial teaching attitudes and behavioral skills are deliberately planned instead of being left to chance.

Training in the clinical skills of diagnosis of learning difficulties in children is conducted with individuals who come to the Special Education Department's educational appraisal clinic for intensive study. Prior to such specialized training, students engage in a wide spectrum of field experiences, observing and interacting with exceptional children in school and community program settings.

Student teaching, which may be done in a team setting, is the culminating field experience and is conducted during the senior year. All student teachers will have at least two varied experiences, either with two types of exceptionalities, or with one regular elementary class and one special education setting.

Professional Education and Area of Specialization

ED	110	Introduction to Education	3
PSY	260	Developmental Psychology	3
PSY	322	Educational Psychology	3
ELED	323	Teaching of Reading	3
ELED	324	Teaching of Math	3
SPA	457	Dev. Seq. of Language/Speech	3
SPED	210	Human Exceptionalities	3
SPED	215	Human Relations Skills	3
SPED	220	Nature of Mental Retardation	3
SPED	225	Early Field Experience	1
SPED	240	The Physically Handicapped	3
SPED	305	Specific Learning Disabilities	3
SPED	310	Socially and Emotionally Disturbed	3
SPED	445	Career Education	2
SPED	410	Educational Appraisal	4
SPED	415	ID & S for M/MH	6
SPED	420	ID & S for S/PM	6
SPED	425	Behavior Management	3
SPED	450	Student Teaching	12
RELATED SERVICES			11

NOTE: General Education requirements are listed on pages 87-89.

TYPICAL PROGRAM FOR
SPECIAL EDUCATION MAJORS

FIRST YEAR -- 32 Semester Hours

			s.h.				s.h.
ENG	111	English Comp	3	HPE	Activity	1	
HPE	111	Health Education	2	General Education			
SPED	210	Human		Requirements or			
			Exceptionalities	3	Electives		
					23		

SECOND YEAR -- 32 Semester Hours

PSY	111	General Psychology	3	SPA	457	Development Sequences of Languages & Speech	3
SPED	215	Human Relations Skills	2	SPED	240	The Physically Handicapped	3
SPED	225	Early Field Experience	1	PSY	260	Developmental Psychology	3
ED	110	Intro to Educ.	3	PSY	322	Educational Psychology	3
HPE		Activity	1			General Education Requirements or Electives	7
SPED	220	Nature of Mental Retardation	3				

THIRD YEAR -- 32 Semester Hours

5th Semester

6th or 7th Semester

ELED	323	Teaching of Reading	3	SPED	410	Educational Appraisal & Prescription I	4
ELED	324	Teaching of Elem. School Math	3			General Requirements	12
SPED	305	Specific Learning Disabilities	3				
		General Electives	6				

FOURTH YEAR -- 31 Semester Hours

7th or 6th Semester

8th Semester

SPED	415	Instruc Dev & Strategies M/MH	6	SPED	422	Professional Practicum	2
SPED	420	Instruc Dev. & Strategies P/SH	6	SPED	450	Student Teaching	12
SPED	425	Behavior Mgmt	3				
SPED	445	Career Education	2				

DUAL CERTIFICATION

Elementary Education and Special Education

FIRST SEMESTER

ED	110	Intro. to Educ.	3
ENG	111	English Comp	3
BIOL	111	Basic Biol. Sci.	4
SPED	210	Human Except	3
		Human Elective	3
			16

SECOND SEMESTER

SPED	220	Nature of M.R.	3
ECH	321	Childhood Dev	3
SCT	113	Fund. of Speech	3
		Non-Western Culture	3
HUM	120	or 121	3
SPED	215	Human Rel. Skills Trng	2
			17

THIRD SEMESTER

PHSC	111	Basic Physical Science: Chem	3
HPE	111	Health Education	2
MATH	111	Basic Math for Elem. Teachers	3
ES	111	Basic Earth Sci.	3
SPED	225	Early Field Exp.	1
SPED	240	Physically Handl.	3
			15

FOURTH SEMESTER

MATH	211	Modern Concept of Math for El. Tchrs	3
PSY	322	Educational Psych	3
PHSC	112	Basic Physical Sci	3
ED	224	Educational Eval	3
HPE		Activity	1
SPED	305	Specific Learning Disabilities	3
			16

FIFTH SEMESTER

ENG	252	Intro. to Eng Language	3
ED	226	Basic Teaching Skills	3
MUS	131	Fund. of Music	3
PS	211	American Govt	3
SPED	310	Socially and Emotionally Disturbed	3
HIST	213	Hist. of the U S	3
			17

SIXTH SEMESTER

ELED	323	Teaching of Reading	3
ELED	324	Tchng Elem School Math	3
ELED	331	Children's Lit.	3
ELED	330	Communication Arts	2
MUS	132	Basic Music Methods	3
HPE	223	Physical Education for Elem. Majors	1
SPA	455	Speech Corr. for the Classroom Tchr	3
			18

SEVENTH SEMESTER

ELED	325	Tchnng of Elem School Social Studies	3
ELED	326	Reading Problems in Elem. School	3
SCED	322	Tchnng of Elem. Sci	3
ART	190	Art in the Elem Grade	3
HPE	323	Mod Curr - HPE	1
SPED	410	Educ. Appraisal I	4
			17

EIGHTH SEMESTER

SPED	415	ID & S M/MH	6
SPED	420	ID & S for S/PM	6
SPED	425	Behav Mgmt/Sp Ed Settings	3
SPED	445	Career Education	2
			17

NINTH SEMESTER

ELED	424	Elem Student Teaching	6
SPED	450	Student Teaching	6
			12

B.S. DEGREE IN HABILITATIVE SCIENCES

Clarion University of Pennsylvania has developed a program to prepare professional personnel to provide meaningful human services to various groups of persons who have specialized needs such as those who are developmentally disabled, aging, troubled youth, and alcohol/drug abusers. Program graduates shall be competent in the technology of individual client service planning and implementation. They shall also be knowledgeable about the needs of the client-groups and the fundamental concepts of service-delivery at the personal or care-giving level as well as at the program level. They are skilled at the entry-level in relevant career activities of client-programming/theory and are prepared to be considered for supervisory/consultative roles as program specialists.

PROGRAM REQUIREMENTS

AREA OF SPECIALIZATION

I Habilitative Science Core -- 41 credits			
SPED	210	Human Exceptionalities	3
SPED	215	Human Relations Skills Training	2
SPED	225	Early Field Experience	1
SPED	240	The Physically Handicapped	3
SPED	310	Socially and Emotionally Disturbed	3
SPED	425	Behavior Management	3
PSY	464	Intro. to Clinical Psychology	3
HS	460	Models of Delivery Systems	3
HS	470	Therapeutic & Residential Svc. Programs	6
ACTG	151	Financial Accounting	3
PSY	354	Abnormal Psychology	3
SW	311	Principles of Social Work	3
SW	312	Social Work with Groups	3
HPE	317	First Aid and Safety	2
II Areas of Concentration (select one or more)			
A Developmentally Disabled -- 39 credits			
SPED	220	Nature of Mental Retardation	3
SPED	415	ID & S M MH	6
SPED	420	ID & S S/PM	6
HS	465	Assessment of Adaptive Behavior and Vocational Potential	3
PSY	260	Developmental Psychology	3
HPE	326	Adapted Physical Education	5
HS	495	Field Exp. with Develop Disab	15
B Substance Abuse -- 33 credits			
SPED	305	Specific Learning Disabilities	3
HS	405	Substance Abuse	3
HS	465	Assess Adapt Beh/Voc Potential	3
PSY	321	Psychology of Adolescence	3
SOC	351	Contemporary Social Problems	3
GS	242	You and the Law	3
HS	495	Field Experience in Area of Substance Abuse	15
C Gerontology -- 33 credits			
SPED	220	Nature of Mental Retardation	3
SPED	305	Specific Learning Disabilities	3
HS	405	Substance Abuse	3
PSY	457	Psychology of Adult Dev/Aging	3
SOC	351	Contemporary Social Problems	3
SOC	352	The Family	3
HS	495	Field Experience with Elderly	15
III Electives -- 0-6 credits			
Students should select one of three areas of concentration			

NOTE: General Education requirements are listed on page 87-89.

SPECIAL EDUCATION AND HABILITATIVE SCIENCES DUAL EMPHASIS

By taking a dual emphasis in Special Education and Habilitative Sciences, students will gain expertise to serve in schools and with community agencies. In addition to the general education requirements for all students, the following three areas and one area of concentration will constitute the program.

AREA OF SPECIALIZATION

1. Special Education -- 49 credits			
SPED	210	Human Exceptionalities	3
SPED	215	Human Relation Skills Training	2
SPED	220	Nature of Mental Retardation	3
SPED	225	Early Field Experience	1
SPED	240	The Physically Handicapped	3
SPED	305	Specific Learning Disabilities	3
SPED	310	Socially and Emotionally Disturbed	3
SPED	410	Educational Appraisal I	4
SPED	415	ID & S for M/M Handicapped	6
SPED	420	ID & S for S/P Multihandicapped	6
SPED	425	Behavior Management in Sp.Ed. Settings	3
SPED	450	Student Teaching	6
2. Habilitative Sciences -- 20 credits			
HS	460	Models of Hum. Svcs. Del. Sys	3
HS	470	Therapeutic/Residential Svc. Programs	6
ACTG	151	Financial Accounting	3
SW	311	Principles of Social Work	3
SW	312	Social Work with Groups	3
HPE	317	First Aid and Safety	2
3. Professional Education -- 15 credits			
ED	110	Introduction to Education	3
PSY	322	Educational Psychology	3
ELED	323	Teaching of Reading	3
ELED	324	Teaching of Elementary School Math	3
SPA	457	Developmental Sequence Lang Sp.	3

AREAS OF CONCENTRATION (select 1 or more)

4. Developmentally Disabled -- 13 credits			
HS	465	Assessment of Adaptive Behavior	3
HPE	326	Adapted Physical Education	3
HS	495	Field Exp. w/Dev Disabled	7
5. Substance Abuse -- 13 credits			
HS	405	Substance Abuse	3
HS	465	Assessment of Adaptive Behavior	3
HS	495	Field Exp. w/Dev Disabled	7
6. Gerontology -- 13 credits			
HS	405	Substance Abuse	3
PSY	457	Psychology of Adult Dev /Aging	3
HS	495	Field Experience	7

ELEMENTARY EDUCATION/SPECIAL EDUCATION

With careful planning, students can complete programs leading to certification in both special education and elementary education in 9 semesters or 4 years and a summer, thereby becoming eligible to teach in both regular and special classrooms. The dual certification will also help students to meet the challenges of mainstreaming. In addition, several states are now requiring dual certification to teach handicapped individuals.

DEPARTMENT OF SPEECH PATHOLOGY AND AUDIOLOGY

R. Dennis Hetrick, Chair

Professors: Dininny, Hartley, Hetrick; *Associate Professors:* Keenan, McAleer, Smith; *Assistant Professor:* Simpson

This program, leading to the Bachelor of Science Degree in Speech Pathology and Audiology, is designed to prepare students to function with children and adults in school and non-school settings as speech and hearing professionals. Since full professional status requires certification by the American Speech Language and Hearing Association, the program has been designed to provide not only entering competence but a thorough foundation for advanced study, with students selecting either a speech and hearing science or clinical track option. Furthermore, the department has an articulation agreement with Gallaudet College wherein interested majors may study for a semester at Gallaudet College and transfer all earned credits back to Clarion University. A deaf education concentration is also available for those who seek that career opportunity.

In addition to the undergraduate program the Department offers a graduate degree program in Speech Pathology and Audiology.

REQUIRED COURSES -- CLINICAL TRACK

			c.h.	s.h.
SPA	125	Introduction to Communication Disorders	3	3
SPED	210	Human Exceptionalities	3	3
SPA	450	Speech Science	3	3
SPA	451	Anatomy of Speech and Hearing Mechanisms	3	3
SPA	452	Speech Pathology I	3	3
SPA	453	Speech Pathology II	3	3
SPA	456	Phonetics and Phonology	3	3
SPA	457	Developmental Sequences in Language	3	3
SPA	458	Language Disorders in Children	3	3
SPA	460	Hearing Problems	3	3
SPA	463	Speech Reading and Auditory Training	3	3
SPA	468	Speech and Hearing Clinic I: Practicum	7.5	3
ED	110	Introduction to Education	3	3
ELED	323	Teaching of Reading	3	3
PSY		Electives	9	9
ENG	457	Introduction to Linguistics	3	3
MATH	221	or PSY 230	3	3
SPA	423	Professional Practicum	2	2
SPA	422	Clinical Externship	30	12

NOTE: For General Education requirements in Speech Pathology and Audiology see pages 87-89.

SPEECH PATHOLOGY AND AUDIOLOGY -- SEQUENCES OF COURSES -- CLINICAL TRACK

1ST SEMESTER

SPA	125	Introduction to Communication Disorders	3	3
SPA	450	Speech Science	3	3

2ND SEMESTER

SPA	456	Phonetics and Phonology	3	3
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1ST or 2ND SEMESTER

SPED	210	Human Exceptionalities	3	3
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3RD SEMESTER

SPA	452	Speech Pathology I	3	3
SPA	451	Anatomy of Speech and Hearing Mechanisms	3	3

4TH SEMESTER

SPA	457	Developmental Sequences in Languages and Speech	3	3
SPA	453	Speech Pathology II	3	3

5TH SEMESTER

SPA	460	Hearing Problems	3	3
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6TH SEMESTER

SPA	463	Speech Reading and Auditory Training	3	3
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5TH or 6TH SEMESTER

SPA	468	Speech and Hearing Clinic I: Practicum	7.5	3
SPA	458	Language Disorders in Children	3	3

7TH or 8TH SEMESTER

SPA	423	Professional Practicum	2	2
SPA	422	Clinical Externship	30	12

REQUIRED COURSES -- SPEECH AND HEARING SCIENCE TRACK

			c h	s h
SPA	125	Introduction to Communication Disorders	3	3
BCIS	200	Computer Info. Process	3	3
SPED	210	Human Exceptionalities	3	3
SPA	450	Speech Science I	3	3
SPA	451	Anatomy of Speech and Hearing Mechanisms	3	3
SPA	452	Speech Pathology I	3	3
SPA	453	Speech Pathology II	3	3
SPA	456	Phonetics and Phonology	3	3
SPA	457	Developmental Sequences in Language	3	3
SPA	458	Language Disorders in Children	3	3
SPA	460	Hearing Problems	3	3
SPA	463	Speech Reading and Auditory Training	3	3
SPA	468	Speech and Hearing Clinic I	7.5	3
ED	110	Introduction to Education	3	3
ELED	323	Teaching of Reading	3	3
PSY		Electives	9	9
ENG	457	Introduction to Linguistics	3	3
MATH	221	or PSY 230	3	3
SPA	423	Professional Practicum	2	2
SPA	422	Clinical Externship	30	12

NOTE: For General Education requirements in Speech Pathology and Audiology see pages 87-89.

SPEECH PATHOLOGY AND AUDIOLOGY -- SEQUENCE OF COURSES -- SPEECH AND HEARING SCIENCE TRACK

1ST SEMESTER

SPA	125	Introduction to Communication Disorders	3	3
SPA	450	Speech Science	3	3

2ND SEMESTER

SPA	456	Phonetics and Phonology	3	3
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1ST or 2ND SEMESTER

SPED	210	Human Exceptionalities	3	3
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3RD SEMESTER

SPA	451	Anatomy of Speech and Hearing Mechanisms	3	3
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4TH SEMESTER

SPA	457	Developmental Sequences in Language and Speech	3	3
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5TH SEMESTER

SPA	452	Speech Pathology I	3	3
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6TH SEMESTER

SPA	453	Speech Pathology II	3	3
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7TH SEMESTER

SPA	460	Hearing Problems	3	3
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8TH SEMESTER

SPA	463	Speech Reading and Auditory Training	3	3
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7TH or 8TH SEMESTER

SPA	458	Language Disorders in Children	3	3
SPA	467	Clinical Observation	3	3
ENG	457	Introduction to Linguistics	3	3
SPA	472	Seminar in Speech Science	3	3

COLLEGE OF GRADUATE STUDIES AND CONTINUING EDUCATION

Frank H. Sessions, Ph.D., Dean

Office: Carrier Administration Building, Room 108
Telephone Extension -- Continuing Education: 2227
Telephone Extension -- Graduate Studies: 2337

GRADUATE DEGREE PROGRAMS

Clarion University of Pennsylvania offers 11 graduate level programs leading to the Master of Arts, Master of Business Administration, Master of Education, Master of Science, or Master of Science in Library Science (accredited by the American Library Association) degrees.

Biology (M.S.)	Mathematics (M.Ed.)
Business (M.B.A.)	Reading Education (M.Ed.)
Communications (M.S.)	Science Education (M.Ed.)
Elementary Education (M.Ed.)	Special Education (M.S.)
English (M.A.)	Speech Pathology and
Library Science (M.S.L.S.)	Audiology (M.S.)

Teacher certificate programs are also available for Instructional Media Specialist, Reading Specialist, and School Supervisor.

For more detailed information on graduate curricula and courses, refer to the Graduate School bulletin.

CONTINUING EDUCATION PROGRAMS

The major thrust of continuing education is to organize and make available to the community the vast resource of instructional talent that resides in the area. Educational programming of all types, presented in almost any format, and developed to meet the needs of a wide variety of audiences, is possible through continuing education.

Generally continuing education activities will fall into one of three program types: non-credit courses, open to the general public without regard to educational backgrounds; credit courses offered to meet professional needs; and conferences, a concentrated experience developed for a specific group.

Non-credit courses, as the name implies, do not carry academic credit, do not require admission to the university, do not have examinations or grades. They are mostly conducted on a basic level, thus allowing

everyone the opportunity for personal growth. Reasons for pursuing non-credit courses could be for gaining job skills, personal development, intellectual enrichment or just plain fun.

The fee for each non-credit course is determined largely by the costs involved in presenting the course. This requires that a minimum enrollment be achieved in order for a course to proceed.

Records of each student's participation in non-credit classes will be maintained. The Continuing Education Unit, C.E.U., will be awarded upon successful completion of a course. One C.E.U. represents 10 hours of instruction.

Continuing education programs providing academic credit are generally offered to meet an in-service or professional development educational need of a specific professional group.

Conference activity at Clarion University of Pennsylvania will be aimed at bringing to the campus various occupational, business, fraternal, labor, and professional groups for concentrated day-long, week-long educational activities. The extent to which Clarion faculty is involved in the instructional component will vary with each conference.

The Evening University is offered in cooperation with the Colleges of Business Administration and Arts and Sciences. This program, addressed mainly to the adult, provides the means to earn a baccalaureate degree while attending class only after 5:00 p.m. Possible majors are Bachelor of Science in Business Administration with a concentration in Real Estate; and Bachelor of Science Degree in General Studies. The College of Continuing Education provides the means of admission and class registration.

As the educational needs of the area become more apparent through observation, suggestion, and assessment, the College of Continuing Education, in cooperation with the various academic units across the campus, will develop and offer programs intended to meet those needs. A class can take place at any time, at any place, and deal with almost any subject.

COLLEGE OF LIBRARY SCIENCE

Office: Carlson Library Building, Room 166
Telephone Extension: 2271

Charles Economous, M.S., Chair

Office: Carlson Library Building, Room 181
Telephone Extension: 2377

Professors: Gamaluddin, Vavrek; *Associate Professors:* Economous, Head, Jetter; *Assistant Professors:* Karp

On December 3, 1937, the State Council of Education approved a curriculum for the education of school librarians at Clarion University.

Library Science courses are also offered as electives for Liberal Arts and Business Administration students (see program description for those degree programs).

Besides meeting state requirements for school librarianship, the library science program at Clarion qualifies students for entry level positions in public and special libraries.

Candidates for the B.S. degree in Education who specialize in library science are required to complete 30 semester hours of library science/communication courses. Upon receipt of the degree, the graduate is recommended for certification as a librarian in all grades of the Pennsylvania public schools.

The undergraduate student begins library science courses in the first semester of the freshman year with the course, Introduction to Media Librarianship. A "C" average must be maintained in library science/communication courses and a cumulative "C" average in all courses must be earned to graduate. (Course work more than 6 years old will not be acceptable in meeting certification requirements.) A student planning eventually to work for a master's degree in library science may need a reading knowledge of a modern foreign language and may, therefore, wish to take one of these languages as an undergraduate. It is also advisable to take one or more courses in computer information science.

Before being assigned to student teaching, all students specializing in library science must have completed the thirty hours required for the specialization.

The student will find information on scholarship requirements for Teacher Education students on pages 135-136.

A total of 128 semester hours must be completed for the B.S. in Education.

THE CURRICULUM IN LIBRARY SCIENCE EDUCATION

(Certification Program)

(Sequence of courses subject to change for administrative reasons.)

1ST SEMESTER

LS	255	Intro. to Media Librarianship	3
LS	432	Colloquium	0

2ND SEMESTER

LS	258	Selection of Library Media	3
CIS	217	Application of Microcomputers	3
LS	432	Colloquium	0

3RD SEMESTER

LS	257	Basic Information Sources & Serv	3
LS	357	Organization of Media	3
LS	432	Colloquium	0

4TH SEMESTER

*LS	358	Media for Children	3
COMM	405	Presentation Graphics	3
LS	432	Colloquium	0

5TH SEMESTER

*LS	356	Media for Adolescents	3
LS	490	Lib. Mtls. & Serv for Exceptional Students	3
LS	432	Colloquium	0

6TH SEMESTER

LS	360	Admin. of School Media Centers	3
LS	459	Media, Methods and the Curriculum	3
LS	432	Colloquium	0

7TH SEMESTER

ED	423	Lib Practice	30-12
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8TH SEMESTER

LS	432	Colloquium	0
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*Prerequisite LS 258

Elementary education majors electing to take library science as a second major are required to take a professional core the seventh semester.

Library science majors electing a second major are required to take ED 423 -- 6 semester hours -- and ELED 424 or ED 424 -- 6 semester hours.

LIBRARY SCIENCE/COMMUNICATION

30 Semester Hours

REQUIRED:

			c.h.	s.h.
LS	255	Introduction to Media Librarianship	3	3
LS	257	Basic Information Sources and Services	3	3
LS	258	Selection of Library Media	3	3
LS	356	Media for Adolescents	3	3
LS	357	Organization of Media	3	3
LS	358	Media for Children	3	3
LS	360	Administration of School Media Centers	3	3
LS	459	Media, Methods, and the Curriculum	3	3
LS	490	Library Matls. and Ser. for Exceptional Students	3	3
LS	432	Colloquium	0	0
COMM	405	Presentation Graphics	3	3

ELECTIVE

CIS	217	Application of Microcomputers	3	3
LS	455	Special Topics in Librarianship	3	3
LS	457	Independent Study/Seminar	1-3	1-3
LS	260	Development and Administration of Libraries	3	3

The College of Library Science offers a graduate program in Library Science accredited by the American Library Association, preparing personnel for first-level professional positions in public, school, academic, and special libraries. It is recommended that students planning to enter the masters program pursue a broad liberal arts education at the undergraduate level. It would be well to seek counsel from advisors and carefully plan the undergraduate program in order to meet the requirements for entering the Master of Science in Library Science program. For further information regarding the program refer to the bulletin of the College of Library Science.

COOPERATIVE EDUCATION INTERNSHIP PROGRAM

College Deans

Co-op study is a general term applied to voluntary, service, part-time and full-time employment, and internship experiences.

Co-op courses (300 level) are based upon job assignments which are related to the student's university major or career objectives and which provide learning experiences as stated in their respective learning objectives. Faculty coordinators from academic departments advise students, review learning objectives, and term reports.

Cooperative education procedures are sufficiently flexible to provide for student and employer needs. The program is designed to enhance self-realization and direction by integrating classroom study with planned and supervised experiences in educational, professional, business, and cultural learning situations outside the formal classroom environment. The joint efforts of faculty, participating employers, and students are directed toward the achievement of an educational experience where classroom studies and appropriate work experience combine to reinforce each other. Prerequisite: junior standing, minimum QPA 2.5, or approval of the appropriate college dean. Offered each semester and summer session.

An internship (400 level) is usually a culminating experience for seniors and graduate students. An intern should have completed most of the required courses in his/her major area of study in order to accept professional level assignments with appropriate supervision. An intern operates in a manner similar to that of a student teacher, with the emphasis upon application of knowledge in a realistic setting rather than acquisition of new material. In other words, an intern is a person with most entry level skills at least partially developed. He/she is expected to render supervised professional services. The length of an internship may be less than a semester or as long as a year. Many internships carry no salary or stipend.

Because internships are tailored to fit the demands of the respective professions as well as the needs of individual students, each college and department is encouraged to establish requirements and criteria for acceptance in the program and for successful completion which go beyond the minimal requirements established by the cooperative education/internship program. Each college through its departments is expected to enforce its own requirements.

Minimally, students must have senior standing and a QPA of at least 2.50 or approval of the department.

CREDIT HOURS for co-op/internship registration carry from 1 to 12 credits as arranged. Any combination of co-op/internship credits earned in excess of 12 semester hours cumulative total will be entered on student records, but will not be counted as credits required for graduation.

GRADING of co-op/internship experiences will carry "Credit/No Record" evaluation of work performance. Individual students may petition to receive a letter grade at the time of registration. This policy does not apply to the Credit/No Record regulation promulgated as part of the university grading system.

CO-OP COURSE NUMBERS

COOP	301:	Co-op/Anthropology
COOP	401:	Intern/Anthropology
COOP	302:	Co-op/Philosophy
COOP	402:	Intern/Philosophy
COOP	303:	Co-op/Political Science
COOP	403:	Intern/Political Science
COOP	304:	Co-op/Sociology
COOP	404:	Intern/Sociology
COOP	305:	Co-op/Social Work
COOP	405:	Intern/Social Work
COOP	306:	Co-op/Art
COOP	406:	Intern/Art
COOP	308:	Co-op/Biology
COOP	408:	Intern/Biology
COOP	309:	Co-op/Environmental Sciences
COOP	409:	Intern/Environmental Sciences
COOP	310:	Co-op/Outdoor Education
COOP	410:	Intern/Outdoor Education
COOP	311:	Co-op/Science Education
COOP	411:	Intern/Science Education
COOP	312:	Co-op/Chemistry
COOP	412:	Intern/Chemistry
COOP	313:	Co-op/Communications
COOP	413:	Intern/Communications
COOP	314:	Co-op/Advertising
COOP	414:	Intern/Advertising
COOP	315:	Co-op/Journalism
COOP	415:	Intern/Journalism
COOP	316:	Co-op/Public Relations
COOP	416:	Intern/Public Relations
COOP	317:	Co-op/Radio
COOP	417:	Intern/Radio
COOP	318:	Co-op/Television
COOP	418:	Intern/Television
COOP	320:	Co-op/Accounting
COOP	420:	Intern/Accounting

COOP	322:	Co-op/ Banking
COOP	422:	Intern/ Banking
COOP	323:	Co-op/ Finance
COOP	423:	Intern/ Finance
COOP	324:	Co-op/ Management
COOP	424:	Intern/ Management
COOP	325:	Co-op/ Marketing
COOP	425:	Intern/ Marketing
COOP	326:	Co-op/ Real Estate
COOP	426:	Intern/ Real Estate
COOP	327:	Co-op/ Economics
COOP	427:	Intern/ Economics
COOP	328:	Co-op/ Administration
COOP	428:	Intern/ Administration
COOP	329:	Co-op/ Office Management
COOP	429:	Intern/ Office Management
COOP	330:	Co-op/ Management in Library Science
COOP	430:	Intern/ Management in Library Science
COOP	332:	Co-op/ Early Childhood
COOP	432:	Intern/ Early Childhood
COOP	333:	Co-op/ Elementary Education
COOP	433:	Intern/ Elementary Education
COOP	334:	Co-op/ Secondary Education
COOP	434:	Intern/ Secondary Education
COOP	335:	Co-op/ Education
COOP	435:	Intern/ Education
COOP	336:	Co-op/ English
COOP	436:	Intern/ English
COOP	337:	Co-op/ Writing Center
COOP	437:	Intern/ Writing Center
COOP	338:	Co-op/ Geography
COOP	438:	Intern/ Geography
COOP	339:	Co-op/ Earth Science
COOP	439:	Intern/ Earth Science
COOP	340:	Co-op/ Urban Planning
COOP	440:	Intern/ Urban Planning
COOP	341:	Co-op/ Health and Safety
COOP	441:	Intern/ Health and Safety
COOP	342:	Co-op/ Physical Education
COOP	442:	Intern/ Physical Education
COOP	343:	Co-op/ Recreation
COOP	443:	Intern/ Recreation
COOP	344:	Co-op/ Coaching
COOP	444:	Intern/ Coaching
COOP	345:	Co-op/ Athletic Training
COOP	445:	Intern/ Athletic Training
COOP	346:	Co-op/ Water Safety
COOP	446:	Intern/ Water Safety
COOP	348:	Co-op/ History
COOP	448:	Intern/ History
COOP	349:	Co-op/ Humanities
COOP	449:	Intern/ Humanities
COOP	350:	Co-op/ Library Science
COOP	450:	Intern/ Library Science

COOP	351	Co-op/ Media
COOP	451	Intern/ Media
COOP	352	Co-op/ Mathematics
COOP	452	Intern/ Mathematics
COOP	353	Co-op/ Military Science
COOP	453	Intern/ Military Science
COOP	355	Co-op/ French
COOP	455	Intern/ French
COOP	356	Co-op/ German
COOP	456	Intern/ German
COOP	357	Co-op/ Russian
COOP	457	Intern/ Russian
COOP	358	Co-op/ Spanish
COOP	458	Intern/ Spanish
COOP	360	Co-op/ Music
COOP	460	Intern/ Music
COOP	361	Co-op/ Piano
COOP	461	Intern/ Piano
COOP	362	Co-op/ Instrumental
COOP	462	Intern/ Instrumental
COOP	363	Co-op/ Vocal
COOP	463	Intern/ Vocal
COOP	364	Co-op/ Music Marketing
COOP	464	Intern/ Music Marketing
COOP	366	Co-op/ Physics
COOP	466	Intern/ Physics
COOP	368	Co-op/ Psychology
COOP	468	Intern/ Psychology
COOP	369	Co-op/ Counseling
COOP	469	Intern/ Counseling
COOP	370	Co-op/ Student Life Services
COOP	470	Intern/ Student Life Services
COOP	371	Co-op/ Student Affairs
COOP	471	Intern/ Student Affairs
COOP	372	Co-op/ Student Development
COOP	472	Intern/ Student Development
COOP	373	Co-op/ Upward Bound
COOP	473	Intern/ Upward Bound
COOP	374	Co-op/ Human Relations
COOP	474	Intern/ Human Relations
COOP	376	Co-op/ Special Education
COOP	476	Intern/ Special Education
COOP	377	Co-op/ Habilitative Sciences
COOP	477	Intern/ Habilitative Sciences
COOP	378	Learning Disabilities
COOP	478	Intern/ Learning Disabilities
COOP	379	Co-op/ Mental Retardation
COOP	479	Intern/ Mental Retardation
COOP	381	Co-op/ Speech Pathology
COOP	481	Intern/ Speech Pathology
COOP	382	Co-op/ Audiology
COOP	482	Intern/ Audiology
COOP	383	Co-op/ Speech
COOP	483	Intern/ Speech

COOP	384	Co-op/Theatre
COOP	484	Intern/Theatre
COOP	386	Co-op/Nursing
COOP	486	Intern/Nursing
COOP	387	Co-op/Medical Technology
COOP	487	Intern/Medical Technology
COOP	389	Co-op/Continuing Education
COOP	489	Intern/Continuing Education
COOP	390	Co-op/Academic Services
COOP	490	Intern/Academic Services
COOP	391	Co-op/Financial Aid
COOP	491	Intern/Financial Aid
COOP	392	Co-op/Research
COOP	492	Intern/Research
COOP	393	Co-op/Admissions
COOP	493	Intern/Admissions
COOP	395	Co-op/Life Experience
COOP	495	Intern/Life Experience
COOP	396	Co-op/Paralegal
COOP	496	Intern/Paralegal
COOP	397	Co-op/Planetarium
COOP	497	Intern/Planetarium

MEDIEVAL AND RENAISSANCE CULTURES CONFERENCE

Clarion University holds membership in a consortium of Pennsylvania universities which sponsor the Conference on Medieval and Renaissance Cultures. Its appeal is to scholars, teachers, students, and all others who have an interest in an appreciation of the art and culture of the Middle Ages and the Renaissance. The Conference features outstanding scholars and when possible, performing groups that specialize in the music and drama of the two periods. It is held annually in early spring either at one of the consortium or other invited institutions. The 1977 and 1983 meetings were hosted by Clarion University.

MILITARY SCIENCE

C. Gordon Smith, LTC, Chair

Offices: Thorn #1 (Operations) and #2 (Headquarters)

Telephone: 2292

Professor: LTC C. Gordon Smith; *Assistant Professors:* MAJ Gist Wylie, CPT David Weatherby, CPT David Jackman, CPT Steven Maida; *Instructors:* SGM Alan Wright, MSG Alvin Jasper, SGT John Powers; *Civilian:* Sal Mazzocchi

The Military Science program provides the student an opportunity to learn and practice the art of leadership. The program has been structured to give the student practical experience in leading people and managing resources -- training designed to prepare the student to reach the pinnacle of his or her chosen profession.

The Military Science program enables the student to learn about the military profession and the role it plays in our democratic system of government.

The Military Science curriculum offers students the opportunity to learn and apply management and leadership skills and to participate in such exciting and challenging activities as rappelling, land navigation, white-water rafting, and marksmanship. The classes enrich the student's course of study and count toward graduation requirements. These courses open an additional career option to the student, enabling him or her to gain a commission and serve as an officer of the Regular Army, the Army Reserve, or the Army National Guard.

REQUIREMENTS FOR ENROLLMENT

Enrollment in Military Science courses (MS 101, 102, 203, 204) is open to freshman or sophomore students without obligation to any military service.

Qualified students may continue in the Advanced Military Science Program (MS 305, 306, 407, 408) with approval of the Professor of Military Science. Those students are eligible to receive a \$100.00 a month subsistence allowance during the academic year if they agree in writing to complete the Advanced Program and accept a Commission as a Second Lieutenant in the U.S. Army, the Army Reserve, or the Army National Guard. Qualified veterans and Junior ROTC graduates may receive advanced placement in the Basic course and enrollment in the Advanced Program.

WHAT ROTC INCLUDES

Equipment and textbooks are issued to enrolled students.

Training in practical skills such as cross-country skiing, rappelling, marksmanship, land navigation, first aid techniques, and water safety.

Opportunities to examine the military profession in detail. This includes the Active Army, Army Reserve, and the Army National Guard.

Students successfully completing the Basic course are eligible to apply to enter the Advanced course. Upon successful completion of the Advanced course, a six-week summer camp, and acceptance for graduation from Clarion University, the student is commissioned as a Second Lieutenant.

THE MILITARY SCIENCE CURRICULUM

The Military Science curriculum is divided into two phases: the Basic course, which includes the first and second academic years, and the Advanced course which includes the third and fourth academic years. Students enrolled in the ROTC program may count credits in Military Science courses under the Personal Development area of the General Education distribution or as free electives toward their graduation requirements. A maximum of 14 hours of Military Science may be applied toward the 128 required for graduation.

Basis Course

8 Semester Hours

The first four semesters of Military Science constitute the Basic course. Classes meet one hour per week and cover the history and the development of the U.S. Army, its role in the support of national objectives, and studies of topographical maps and terrain analysis. A one hour leadership lab accompanies each class stressing leadership and management skills through such vehicles as rappelling, rafting, marksmanship, land navigation, and other outdoor skills.

MS	101	World Military History: The Great Captains	2 credits
MS	102	American Military History	2 credits
MS	203	Fund. of Topographic Map Interpretation	2 credits
MS	204	National Security Concepts	2 credits

Advanced Course

The 300 and 400 series courses constitute the Advanced course of instruction for both men and women who desire a commission as a Second Lieutenant in the Active Army, Army Reserve, or the Army National Guard. This phase is composed of studies in advanced leadership and management, tactics, military law, psychological and social factors which affect human behavior, and modern instructional and training techniques. Practical application is the rule and students have the opportunity to practice and polish their skills.

MS	305	Fundamentals of Organizational Leadership and Modern Learning/Training Relationships	3 credits
MS	306	Study of Advanced Leadership and the Planning and Executing of Modern Tactical Operations	3 credits
MS	407	Management of the Military Complex to Include Fundamentals of Law	3 credits
MS	408	Seminar in Analysis and Management	3 credits

LEADERSHIP LABORATORY

A practical experience designed for the attainment and application of leadership experience principles. Concurrently scheduled in conjunction with all Military Science courses.

VENANGO CAMPUS

Thomas J. Rookey, Ed.D., Dean

Venango Campus offers the following Associate of Science Degrees:

Business Administration (A.S.)

Accounting*

Computer Processing*

Management*

Office Management*

Habilitative Services (A.S.)

Nursing (A.S.N.)

*Academic Concentrations

Venango Campus offers the following Associate of Arts Degree:

Associate of Arts (A.A.) Degree in Arts and Sciences

The Bachelor of Science in Nursing Degree is also offered at Venango Campus.

To complete an Associate Degree, a minimum of thirty credit hours must be completed on the Venango Campus. The transfer of a specific Associate Degree to a specific baccalaureate program may incur deficiencies within the major.

ASSOCIATE OF SCIENCE: MAJOR IN BUSINESS ADMINISTRATION

OBJECTIVES

The Associate of Science program has as its principal objective the providing of an opportunity in post-secondary education not found elsewhere within the service area of Clarion University. Students studying in this program may take general business training or specialize in accounting, general business management, office management, or computer processing. If after earning the Associate Degree the student wishes to continue his/her education, he/she may transfer into Clarion's baccalaureate program without loss of credit.

ACADEMIC REQUIREMENT

The program is divided into three blocks of required courses. Half of the program is aimed at developing the general educational level of the student's ability related to working and living in the business environment. The remaining courses are in the field of business and provide the basic and specialized knowledge needed for entry into the business world.

GENERAL EDUCATION

ENG	111	English Composition	3
SCT	113	Fundamentals of Speech	3
PSY	211	General Psychology	(3)
or			
SOC	211	Prin. of Sociology	(3)
ECON	211	Principles of Macroeconomics	3
HPE	111	Health Education	2
Electives in Science or Humanities			6*
			20

*Office Management students need only 3 credits.

BUSINESS CORE:

The following business courses are required of all students regardless of their area of specialization.

MGMT	120	Introduction to Business	3
MGMT	121	Fundamentals of Management	3
MATH	131	Math for Business and Economics I	3
CIS	110	Computer Info. Processing	3
ACTG	251,252	Financial and Managerial Accounting	6
BSAD	240	Legal Environment I	3
ENG	206	Business Writing	3
ECON	221	Economic and Business Statistics I	3
			27

Each student will choose an area of specialization. Four areas are available. Requirements are listed below for each area.

ACCOUNTING

ACTG	253	Factory Accounting	3
ACTG	254	Payroll Accounting	3
ACTG	255	Financial Statement Preparation & Analysis	3
ACTG	256	Income Tax Procedures & Forms	3
Business Elective		3
			15

GENERAL BUSINESS MANAGEMENT

OFMT	221	Office Management	3
MGMT	228	Human Behavior in Organiz	3
OFMT	227	Applied Supervision	3
Business Electives		6
			15

OFFICE MANAGEMENT

*OFMT	132	Production Typing	3
*OFMT	136	Executive Shorthand	3
OFMT	221	Office Management	3
OFMT	230	Office Procedures	3
OFMT	232	Word Processing	3
Business Elective		3
			18

*OFMT 132 and 136 require a proficiency level equal to two years of high school typing and shorthand OFMT 131 and 135 are required for students who do not have this proficiency.

COMPUTER PROCESSING

CIS	223	Computer Program -- COBOL	3
CIS	271	Microcomputer Applicatons	3
CIS	226	Computer Systems Development	3

Two courses from the following:

CIS	152	FORTRAN II	3
CIS	211	Report Program Generator	3
CIS	224	DSFU COBOL	3
CIS	225	Survey of Languages	3

RECOMMENDED FOUR-SEMESTER SEQUENCE FOR ACCOUNTING, COMPUTER, AND GENERAL MANAGEMENT

First Semester

PSY 211 or SOC 211	3 cr
CIS 110	3 cr
MGMT 120	3 cr
ACTG 251	3 cr
*Elective	3 cr
	15 cr

Second Semester

SCT 113	3 cr.
MATH 131	3 cr
ACTG 252	3 cr.
ENG 111	3 cr
Course from Specialization	3 cr
	15 cr

Third Semester

ECON 211	3 cr
ECON 221	3 cr
BSAD 240	3 cr
Course from Specialization	3 cr.
Course from Specialization	3 cr
	15 cr

Fourth Semester

ENG 206	3 cr.
HPE 111	2 cr.
MGMT 212	3 cr.
*Elective	3 cr
Course from Specialization	3 cr
Course from Specialization	3 cr
	17 cr

*MATH 100 and ENG 110 should be examined before electives are selected

RECOMMENDED FOUR-SEMESTER SEQUENCE FOR OFFICE MANAGEMENT

First Semester

ACTG 251	3 cr.
CIS 110	3 cr.
MGMT 120	3 cr.
*Elective	6-8 cr.
	15-17 cr.

Second Semester

ACTG 252	3 cr.
ENG 111	3 cr.
MATH 131	3 cr.
HPE 111	2 cr.
OFMT 132	3 cr.
OFMT 136	3 cr.
	17 cr.

Third Semester

BSAD 240	3 cr.
ECON 221	3 cr.
ECON 211	3 cr.
SCT 113	3 cr.
OFMT 221	3 cr.
	15 cr.

Fourth Semester

ENG 206	3 cr.
MGMT 121	3 cr.
PSY 211 or SOC 211	3 cr.
OFMT 230	3 cr.
OFMT 232	3 cr.
	15 cr.

*MATH 100, ENG 110, OFMT 131 and OFMT 135 should be examined before first semester is scheduled.

VENANGO CAMPUS ASSOCIATE OF SCIENCE: MAJOR IN HABILITATIVE SERVICES

The associate degree program is designed to provide training for persons desiring to work in paraprofessional roles with exceptional citizens. The emphasis is on the blanket concept of "normalization" and related topics such as deinstitutionalization, mainstreaming, etc. This program is designed to help prepare persons to assist in the social-vocational adjustment of handicapped persons to community living.

Since paraprofessional roles in habilitative services will vary, the program of preparation offers both specialized and generic competencies. The person completing this program may opt for further education in Special Education and/or Habilitative Sciences at the Main Campus.

GENERAL EDUCATION

			Cr
ENG	111	English Composition I	3
SCT	113	Fundamentals of Speech	3
PSY	211	General Psychology	3
PSY	225	Psychology of Adjustment	3
PSY	260	Developmental Psychology	3
PSY	322	Educational Psychology	3
SOC	211	Principles of Sociology	3
HPE	310	Adapted Physical Education	2
Electives		Humanities or Natural Science	9
		General or free elective	3
			35

SPECIAL EDUCATION

SPED	210	Human Exceptionalities	3
SPED	215	Human Relations Skills Training	2
SPED	220	Nature of Mental Retardation	3
SPED	225	Early Field Experience	1
SPED	230	Behavior Disorders	3
SPED	235	Learning Disorders	3
SPED	240	The Physically Handicapped	3
SPED	245	Behavior Management	2
SPED	250	The Helping Relationship: Principles and Procedures	3
SPED	295	Field Experience	6
			27

SUGGESTED FOUR-SEMESTER SEQUENCE

FIRST SEMESTER

ENG	111	English Composition	3
SCT	113	Fundamentals of Speech	3
SPED	210	Human Exceptionalities	3
SPED	215	Human Relations Skills Training	2
PSY	211	General Psychology	3
			14

SECOND SEMESTER

PSY	225	Psychology of Adjustment	3
PSY	260	Developmental Psychology	3
SPED	220	Nature of Mental Retardation	3
SPED	225	Early Field Experience	1
SPED	230	Behavior Disorders	2
SPED	235	Learning Disorders	2
Elective -- Humanities or Natural Sciences			3
			17

THIRD SEMESTER

SPED	240	The Physical Handicapped	3
SOC	211	Principles of Sociology	3
PSY	322	Educational Psychology	3
SPED	245	Behavior Management	2
Elective -- Humanities or Natural Sciences			6
			17

FOURTH SEMESTER

SPED	250	The Helping Relationship Prin. & Proc.	3
SPED	295	Field Experience	6
HPE	310	Adapted Physical Education	2
Elective -- General Elective			3
			14

ASSOCIATE OF ARTS IN ARTS AND SCIENCES

The Associate of Arts is a liberal arts degree program designed to provide the traditional student with a wide range of experiences or to provide the adult learner with a flexible educational program. To complete an Associate Degree, a minimum of thirty credit hours must be completed on the Venango Campus.

SUGGESTED PROGRAM OUTLINE

- I Communication (12)*
 - A ENG 111 English Composition
 - B MATH 121 Excursions in Mathematics
 - C CST 113 Fundamentals of Speech
 - D CIS 110 Computer Information Process
- II Humanities (12)*
 - A MUS 111 Introduction to Music
 - B ART 110 The Visual Arts
 - C ENG 170 The Literary Experience
 - D SCT 253 Introduction to Theater
- III Natural Science (12-13)*
 - A BIOL 111 Basic Biology
 - B PHSC 111 Physical Science - Chemistry
 - C PHS 112 Physical Science - Physics
 - D ES 111 Basic Earth Science
- IV Social Science (12)*
 - A PSY 211 General Psychology
 - B SOC 211 Principles of Sociology
 - C HIST 112 Early Modern Civilization
 - D PS 211 American Government
- V Personal Development (2)
- VI Free Electives (14)
- TOTAL 64

*Since this is a Liberal Arts degree, with the permission of academic advisor substitutions by equivalent course within the area of study is allowable.

VENAGO CAMPUS

GENERAL COURSE OFFERINGS

NOTE: Certain courses listed under general education below are also applicable to major fields. Students should contact the university catalog and their advisors to determine which courses should be taken for specific majors.

I. MODES OF COMMUNICATION

Credits

ENG	111	English Composition	3
COMM	100	Explorations in Mass Comm.	2
CIS	110	Computer Info Process	3
MATH	111	Basic Elementary Math	3
		or	
MATH	112	Excursions in Math	3
SCT	113	Fundamentals of Speech	3
SCT	200	Interpersonal Communication	3
SCT	214	Business and Professional Speaking	3

II. HUMANITIES

ART	110	The Visual Arts	3
ART	125	Color and Design	3
ENG	170	The Literary Experience	3
ENG	201	Advanced Composition	3
ENG	202	Beginning Creative Writing	3
ENG	209	Special Topics in Literature	3
ENG	291	Short Fiction	3
GER	151	German I	3
HUM	120	Humanities I	3
HUM	121	Humanities II	3
MUS	111	Intro to Music	3
PHIL	111	Elementary Logic	3
PHIL	211	Intro to Philosophy	3
SCT	120	Theater Play Production	3
SCT	251	Voice & Diction	3
SCT	253	Intro to Theater	3
SPAN	151	Spanish I	3

III. SOCIAL SCIENCE

ANTH	211	Intro. to Anthropology	3
ECON	211	Prin. of Macroeconomics	3
ECON	212	Prin. of Microeconomics	3
ECON	221	Econ. & Bus. Stats. I	3
GEOG	100	Intro. to World Geography	3
GEOG	258	Geography of Pennsylvania	3
HIST	111	Ancient & Medieval Civ	3
HIST	112	Modern Civilization	3
HIST	113	Modern Civ., 1789 to the Present	3
HIST	120	U.S. History to 1877	3
HIST	121	U.S. History since 1877	3
HIST	216	Business in the American Economy	3
HIST	235	Topics in European History	3
HIST	215	Topics in American History	3
HIST	299	History of American Labor	3
PSY	211	General Psychology	3
PSY	215	Psychology of Adjustment	3
PSY	228	Human Behavior in Organizations	3
PSY	260	Developmental Psychology	3
PSY	331	Child Psychology	3
PSY	354	Abnormal Psychology	3
GEOG	254	Conservation of Natural Resources	3
GEOG	257	Geography of U.S. & Canada	3
PS	211	American Government	3
SOC	211	Principles of Sociology	3
SOC	351	Contemporary Social Problems	3
SOC	352	The Family	3

IV. NATURAL SCIENCE/MATHEMATICS

BIOL	111	Basic Biology	4
BIOL	258	Anatomy & Physiology I	3
BIOL	259	Anatomy & Physiology II	3
BIOL	260	Microbiology	3
BIOL	453	Pathophysiology: Endo	4
BIOL	454	Pathophysiology: Exo	4
CHEM	153	General Chemistry I	3
CHEM	163	General Chemistry Lab I	1
CHEM	154	General Chemistry II	3
CHEM	164	General Chemistry Lab II	1

MATH	100	Practical Math	3
MATH	131	Math. for Bus. & Econ. I	3
MATH	232	Calculus for Business	3
MATH	171	Precalculus	4
MATH	221	Applied Statistics	3
MATH	240	Discrete Math. Structures	3
MATH	270	Calculus w/Analytical Geom. I	4
ES	111	Basic Earth Science	3
ES	252	Physical Geology	3
PHSC	111	Basic Phys. Sci. I (Chem.)	3
PHSC	112	Basic Phys. Sci. II (Physics)	3

V. ELECTIVES FOR GENERAL EDUCATION

ENG	110	Basic Composition Skills	3
ENG	200	Composition & Literature	3
ENG	206	Business Writing	3
GS	100	College Reading/Study Skills	2
HPE	111	Health	2
HPE	151	Basketball	1
HPE	153	Volleyball	1
HPE	173	Aerobic Dancing I	1
OFMT	232	Word Processing	3
RE	270	Real Estate Fundamentals	3
RE	271	Real Estate Practice	3
RE	272	Real Estate Law	3

BUSINESS EDUCATION SUBJECTS

ACTG	251	Fin. Actg	3
ACTG	252	Managerial Actg.	3
ACTG	253	Factory Actg.	3
ACTG	254	Payroll Actg	3
ACTG	255	Fin. Statement Prep. & Analysis	3
ACTG	256	Income Tax Procedures & Forms	3
CIS	151	Intro. to FORTRAN	3
CIS	226	Computer Systems	3
CIS	255	Survey of Languages	3
CIS	211	Report Prog. Gen	3
CIS	217	Micro-Mini Computers	3
CIS	223	Computer Prog. COBOL I	3
CIS	224	COBOL II	3
CIS	253	Comp Org & Assem. Lang	3
BSAD	228	Human Behav. in Org	3
BSAD	240	Legal Environm. I	3
BSAD	241	Legal Environm. II	3
MGMT	120	Intro. to Bus.	3
MGMT	121	Fund. of Mgmt.	3
MGMT	227	Applied Superv.	3

OFMT	131	College Typing	3
OFMT	132	Production Typing	3
OFMT	135	College Shorthand	3
OFMT	136	Executive Shorthand	3
OFMT	221	Office Management	3
OFMT	230	Office Procedures	3
OFMT	231	Office Practice	3

SPECIAL EDUCATION SUBJECTS

SPED	210	Human Except	3
SPED	215	Human Rel. in Skills Train.	2
SPED	220	Nature of Ment. Retard	3
SPED	225	Early Field Exp.	1
SPED	230	Behav Disorders	2
SPED	235	Learn. Disorders	2
SPED	240	The Phys. Handicapped	3
SPED	245	Behav Mgmt.	2
SPED	250	The Helping Hand Relationship: Prin. & Proc.	3
SPED	295	Field Experiences	6

PROFESSIONAL EDUCATION COURSES

ED	323	Social Foundations of Education	3
ED	329	Audio-Visual Education	2
PSY	322	Educational Psychology	3
HPE	310	Adapted Physical Education	2

DIVISION OF NURSING

T. Audean Duespohl, M.S.M., M.Ed., Director

PHILOSOPHY

The philosophy of the Clarion University Nursing Division is consistent with the philosophy of Clarion University in establishing as the Division's primary goal the provision of educational experiences designed to promote scientific inquiry, creative thinking, critical judgment, and self-evaluation. The student's nursing education is complemented by such curriculum offerings as humanities, natural sciences, behavioral sciences, and free electives. The programs are based on the concept of continued self-development so that graduates will aspire to improve and expand their competencies on a continuing basis after graduation.

Nursing is a profession concerned with the delivery of care to individuals and groups of individuals who desire assistance with health maintenance during their life processes. The nursing process is the basis for communication between the nurse, client, and family who collaborate to achieve maximum health potential. This process includes health teaching by the nurse for the purpose of establishing and maintaining a high level of well-being.

Man is a unified whole who continually interrelates with his environment. Man as a sensing, thinking being makes conscious choices and assumes responsibility for the consequences. Given freedom of choice, man will make decisions regarding his health care needs according to his priorities. He possesses and manifests traits that are greater than but different from the sum of all his parts. Man's family is made up of significant others within his framework of life.

Health, as defined by the client, is the primary focus of nursing care. It is a dynamic, ever-changing state based on man's ability to maintain his optimum level of wellness. A client's concept of health-illness is derived from patterns he has formulated based on his personal experiences. Man, as an expert on himself, assumes responsibility for seeking assistance throughout the health-illness continuum. Therefore, he must be consulted concerning his own health goals and participate actively in his health care.

Society is a dynamic organization which is composed of individuals, families, and communities. Societal roles and trends interrelate with man's experience to direct his behavioral patterns and life goals. This interaction is demonstrated by man's practicing of health maintenance and striving for well-being.

Education is a dynamic activity which involves the teaching-learning process. Teaching is an organized activity that facilitates learning and is accomplished by the active sharing of attitudes, skills, and knowledge. Learning requires mental activity and is enhanced by a climate which takes into consideration the learner's previous educational and life experience.

Learning is a self-directed activity requiring motivation, desire, and effort by the learner, and the learner's response to the process is unique to that individual.

The Nursing Faculty endorses two levels to nursing practice -- the technical and the professional -- and conceptualizes the nursing profession as follows:

The first level of nursing is provided by the technical nurse who is educated in associate degree nursing programs and the second level by the professional nurse prepared in baccalaureate and post-baccalaureate programs. The nursing care provided by the associate degree nurse demonstrates a high degree of technical skill based upon principles from an ever-expanding body of science. The associate degree nurse works directly under the supervision of the professional nurse, performing those skills necessary to carry out the prescribed nursing care plan and the medical regimen. The professional nurse, although proficient in technical skills, assumes primary responsibility for the nursing care of individuals and groups, coordinates the health team as it assists the client with his goals, serves as a resource person for all persons giving direct client care, and engages in research to evolve nursing theory.

DIVISION OF NURSING POLICIES

Academic Requirements in Nursing

The academic requirements of the university apply to all programs in the Division of Nursing, but in addition the student must earn grades of at least C in the theory and PASS in clinical practice in each of the following nursing courses: NURS 101, 102, 103, 201, 202, 361, 462, 463, and 464.

All the nursing courses listed above entail (a) theory and (b) clinical practice. The student receives two grades in each course. The theory area of all nursing courses is graded on the conventional A-B-C-D-E scale with any mark below C indicating failing achievement. Students will be graded in theory according to the following:

GRADING SCALE

93-100	A
84-92	B
75-83	C
74-66	D
65-below	E

The clinical practice experience is graded Pass/Fail instead of being awarded a letter grade. The associate degree student is evaluated by four critical elements which must be met in order to receive a passing grade in the clinical area. The baccalaureate degree student is evaluated by an evaluation tool based on program and course objectives.

An unsatisfactory grade in either the theory or the clinical practice experience or both areas of any of the nursing courses listed in this section is regarded as a failure for the entire course and failure in the nursing program.

Transfer

The transfer policy for nursing students is consistent with that of Clarion University.

- a. Application must be made directly to the Office of Admissions:
Dean of Admissions
Clarion University
Clarion, PA 16214
- b. Official transcript of credits and certificates of honorable dismissal must accompany the application for admission. A "C" or better is required on all credits transferred. Transfer courses must be comparable with those offered at Clarion University.
- c. A student transferring into the Associate of Science in Nursing Program must have a minimum of one year's residence (30 semester hours of credit) to qualify for a degree from Clarion University. A student transferring into the Bachelor of Science in Nursing Program must have a minimum of two years residence (45 semester hours of credit) to qualify for a degree from Clarion University.

Nursing credits are only transferable if received from an Associate Degree or Bachelor Degree Program within the preceding two years. Only the courses NURS 101, NURS 102, NURS 103, and NURS 357 are transferable and only if they are deemed comparable by the nursing faculty.

Individuals transferring into the Division of Nursing Program will be evaluated according to the following criteria:

- a. Personal Interview (See General Admission Interview Criteria)
- b. Educational Transcript
- c. Educational References
- d. Competency Examination
 - (1) Theory
 - (2) Practice

Intercollegiate Transfer

A student presently enrolled in a program at Clarion University may request admission into the Associate of Science in Nursing Degree Program by filling out a Change of Status Form and submitting to the Division of Nursing at Venango Campus.

1. A student must have the Change of Status Form completed and sent to the Division of Nursing by January 31, for admission to the program in September of that year.
2. Interviews of prospective transfer students from within the university will begin February 1.
3. Students requesting intercollegiate transfer must meet the following criteria:
 - a. satisfactory grades the previous semester at Clarion
 - b. an overall Q.P.A. of 2.00
 - c. a high school class rank of 2/5 or better
 - d. high school board scores
4. The candidate will be evaluated on:
 - a. Scholastic aptitude
 - (1) Class rank
 - (2) College Entrance Examination Board Tests
 - (3) Previous university semester grades
 - (4) University QPA
 - b. Personal interview (see General Admissions Interview Criteria)

Readmission

Students who are dropped from a nursing program because of unsatisfactory performance as noted in the Grading Policy may apply for readmission to the nursing program. Readmission to the nursing program involves the professional judgment of the nursing faculty with its recommendation based upon a majority vote of the faculty. If the student is readmitted into the nursing program after a failure, he/she must repeat both components of the course in which achievement was unsatisfactory regardless of the grade in either.

It should be understood that a student dropped from the nursing program is not by such action dropped from the university. Either academic probation or academic suspension from the university is based upon the failure to achieve academic standards detailed in the university catalog. Thus, a student who is dropped from nursing for unsatisfactory performance in nursing courses may be eligible to transfer into another area of study.

Students who withdraw from a nursing program are not automatically readmitted but must be evaluated individually by the nursing faculty. Readmission to the nursing program involves the professional judgment of the nursing faculty with its recommendation based upon a majority vote of the faculty.

ASSOCIATE OF SCIENCE IN NURSING PROGRAM

Barbara Stright, RN, MSN, Coordinator
Patricia Gracy, RN, MSN, Coordinator

Assistant Professors: Amsdell, Gracy, Harrison, Shiley, Stright, Weber

ROLE STATEMENT

Associate degree nursing education at Clarion University provides a theoretical foundation for the development of knowledge and skills necessary to assist individuals with their health care. Technical nursing education prepares associate degree graduates to function as direct care givers within hospital settings. Nursing care focuses on the person with common recurring health problems and incorporates those nursing interventions which are based on previously established protocol. Upon successful completion of the Associate Degree of Science in Nursing Program, the graduate is eligible to take the National Council Licensure Examination (NCLEX) to become a registered nurse (RN).

ADMISSION REQUIREMENTS

Candidates for admission into the Associate of Science in Nursing Program must make application to the Admissions Office at Clarion University. All nursing individuals are required to have a pre-acceptance personal interview in order to evaluate:

- a. Basic communication skills
- b. Maturity
- c. Motivation
- d. Applicability
- e. Previous educational and/or work experiences

Academic admission criteria for entrance include the following:

- a. a high school class rank of 2/5 or better
- b. exceptionally high college board scores
- c. high motivation

Nursing applicants shall have completed work equal to a standard high school course with a minimum of 16 units, including 4 units of English, 3 units of Social Studies, and 2 units of Mathematics (one of which is Algebra). In addition, they must have received a "C" average in secondary school biology and chemistry within five years prior to entry into the program.

The Division of Nursing has an Advanced Standing Policy for Licensed Practical Nurses who desire to continue their education at the collegiate level.

Associate of Science in Nursing Degree Program Curriculum

FRESHMAN YEAR

First Semester

			Cr
ENG	111	Composition	3
BIOL	258	Anatomy & Physiology I	3
PSY	211	General Psychology	3
NURS	101	Introduction to the Nursing Process: Fundamentals of Nursing	8

Second Semester

BIOL	259	Anatomy & Physiology II	3
PSY	322	Developmental Psychology	3
		Elective	3
NURS	102	Nursing Process I: Parental and Child Health	4
NURS	103	Nursing Process II	4

SOPHOMORE YEAR

Third Semester

SCT	113	Fundamentals of Speech	3
BIOL	260	Microbiology	3
SOC	211	Principles of Sociology	3
NURS	201	Nursing Process III	8

Four Semester

ENG		Elective	3
HUM		Elective	3
NURS	202	Nursing Process IV	8
NURS	203	Nursing Seminar	2

Total Credits = 67

BACHELOR OF SCIENCE IN NURSING PROGRAM

Mary Kavooosi, RN, MSN, Coordinator

Assistant Professors: Benson, Kavooosi, Lawrence

ROLE STATEMENT

The Bachelor of Science in Nursing Program at Clarion University prepares the graduate to practice as a generalist in a variety of health settings through the internalization of concepts relevant to professional nursing. The BSN Program promotes the application of the natural,

social, and behavioral sciences, as well as nursing theory to the practice of professional nursing. Through research, professional nursing education extends the knowledge base and scope of nursing practice.

The Bachelor of Science in Nursing Program is based on the career ladder concept, and is therefore a continuation of the Associate of Science in Nursing Program. As such, this program requires a minimum of four additional semesters of study beyond the associate degree.

ADMISSION REQUIREMENTS

Candidates for admission into the Bachelor of Science in Nursing Program must make application to the Admissions Office at Clarion University and gain acceptance into the Associate of Science in Nursing Program. During the fourth semester of the associate degree program, individuals interested in continuing their education at the bachelor level must notify the Admissions Office of their intent to further their education by making application to the BSN program. Admission criteria for entrance include the following:

- a. Have graduated from Clarion's Associate of Science in Nursing Program the previous Spring semester.
- b. Have applied to take the licensure examination for registered nurses in the state of Pennsylvania prior to Fall semester.
- c. Show evidence of scholarship as demonstrated by a Q.P.A. of 2.5 on a 4.0 point system.
- d. Earn a satisfactory score on the N.L.N. Comprehensive Examination.
- e. Complete a personal interview to determine:
 - (1) suitability for professional nursing
 - (2) personal goals related to professional nursing

Bachelor of Science in Nursing Curriculum

***FRESHMAN YEAR**

***SOPHOMORE YEAR**

JUNIOR YEAR

First Semester

			Cr
NURS	340	Man-Health-Nursing	3
NURS	361	Advanced Nursing Process	6
CHEM	153	General Chemistry I	3
CHEM	163	General Chemistry I Lab	1
ED	322	Educational Psychology	3

Second Semester

			Cr
NURS	357	Leadership Skills in Nursing	3
NURS	462	Advanced Nursing Process: Chronic Care	6
CHEM	154	General Chemistry II	3
CHEM	164	General Chemistry II Lab	1
PSY/MATH		Statistics	3

SENIOR YEAR

Third Semester

			Cr
NURS	445	Inquiry in Nursing	2
NURS	463	Advanced Nursing Process: Acute Care	6
BIOL	453	Pathophysiology I	4
CHEM	205	Nutrition	3

Fourth Semester

			Cr
NURS	464	Advanced Nursing Process: Health Promotion and Maintenance	6
BIOL	454	Pathophysiology II	4
		Elective	3
HUM		Elective	3

Total Credits = 128

*Refer to Freshman and Sophomore years of Associate of Science in Nursing Curriculum.

BACHELOR OF SCIENCE IN NURSING RN — COMPLETION PROGRAM

Mary Kavooosi, RN, MSN, Coordinator

Assistant Professors: Benson, Kavooosi, Lawrence

ROLE STATEMENT

The Bachelor of Science in Nursing completion program at Clarion University prepares the graduate to practice as a generalist in a variety of health settings through the internalization of concepts relevant to professional nursing. The BSN completion program promotes the application of the natural, social and behavioral sciences, as well as nursing theory to the practice of professional nursing. Through research, professional nursing education extends the knowledge base and scope of nursing practice.

Upper division nursing education is built upon the fundamental nursing knowledge and technical competencies acquired by the registered nurses prior to entrance into the program. Thus, Clarion University's Bachelor of Science in Nursing completion program is designed to augment previously attained knowledge and experiences in order to graduate individuals prepared to practice nursing at the professional level.

ADMISSION REQUIREMENTS

Admission into the Bachelor of Science in Nursing RN - Completion Program is contingent upon successful fulfillment of lower division requirements. Nursing students can fulfill requirements of the lower division by:

1. Transferring 32 nursing credits from an associate degree in nursing program, or successful completion of selected challenge exams.
2. Transferring 33 general education credits from an accredited college or successful completion of selected challenge exams.

Admission criteria are as follows:

1. Be currently licensed as a registered nurse in Pennsylvania.
2. Have worked a minimum of one year as a registered nurse.
3. Show evidence of professional and personal liability insurance coverage.
4. Show evidence of scholarship as demonstrated by School of Nursing transcripts. The term "scholarship" shall be defined as having achieved a Q.P.A. of 2.5 on a 4.0 point system, or a comparable equivalent of a C+ during his/her technical nursing education. (The applicant may submit additional evidence of achievement.) The individual must have maintained a 2.5 Cumulative Grade Point Average in the Lower Division nursing and general education requirements for acceptance into the Bachelor of Science in Nursing Program.
5. Have at least one personal interview with a nursing faculty member prior to admission to evaluate;
 - a. Suitability for professional nursing
 - b. Personal goals related to professional nursing.
6. Have met the admission examination requirements in one of the following ways:
 - a. Graduated from a N.L.N. accredited associate degree program within five years.
 - b. Earned a satisfactory score on the required N.L.N. examination(s) within five years.
 - c. Take the N.L.N. competency in the application of the nursing score.
7. Demonstrate competency in the application of the nursing process.

Bachelor of Science in Nursing Curriculum RN - Completion Program

Lower Division Requirements

Nursing

	Credits
Maternal and Child Health Care	8
Child Health Care	8
Mental Health Care	8
Adult Health Care	8
	32

General Education

English Composition	3
Sociology	3
Speech	3
Natural Science and/or Math	9
Psychology	6
Free Elective	9
	33

Upper Division Requirements

Junior Year*

Senior Year*

Total Credits = 128

*Refer to Junior and Senior years of the Bachelor of Science in Nursing Curriculum

COURSE DESCRIPTIONS

Academic calendar sequence in which course is offered follows each course description. The designated sequence is probable rather than guaranteed, and is subject to change.

Each semester = annually

Fall = first semester

Spring = second semester

On demand = course offered if potential enrollment warrants.

ACCOUNTING

ACTG 251 FINANCIAL ACCOUNTING 3 s.h.

A study of the principles and procedures for collecting, recording, summarizing, and reporting, financial information. Prerequisite: sophomore standing only at Clarion campus. Each semester, summer

ACTG 252 MANAGERIAL ACCOUNTING 3 s.h.

A study of the aspects of accounting that aid managers. Included are budgeting, cash behavior and systems, alternate choice decisions, international accounting aspects, and cash flow. Prerequisite: sophomore standing only at Clarion campus, and ACTG 251. Each semester, summer

ACTG 253 FACTORY ACCOUNTING 3 s.h.

This course presents fundamental accounting concepts and techniques applied in record keeping and accounting control of the production process. Prerequisite: ACTG 252. Fall, annually, only at Venango Campus

ACTG 254 PAYROLL ACCOUNTING

This accounting course provides detailed coverage of payroll policy, records, wage calculation, deductions, and government reporting with an emphasis on tax form preparation. Prerequisite: ACTG 252. Spring, annually, only at Venango Campus.

ACTG 255 FINANCIAL STATEMENT PREPARATION
AND ANALYSIS 3 s.h.

This course focuses on procedures for financial statement preparation and the use of accounting information as a basis for decision making by management, owners, creditors, and other users of financial statements. Prerequisite: ACTG 251. Fall, annually, only at Venango Campus.

ACTG 256. INCOME TAX PROCEDURES AND FORMS 3 s h

The course explains which types of income are taxable and which expenses are deductible. Both filling out and filing individual, partnership, and corporate tax returns will be covered. Prerequisite: ACTG 251. Spring, annually, only at Venango Campus.

ACTG 350. INTERMEDIATE ACCOUNTING 3 s h

A study of accounting theory and practice. Topics included are accounting for current assets, investments, plant and equipment, and intangibles. A special emphasis will be placed upon developing the student's technical and problem-solving ability. Prerequisite: ACTG 252. Each semester, summer.

ACTG 351. ACCOUNTING FOR EQUITIES 3 s h.

A study of accounting theory and practice. Topics included are accounting for current and long-term liabilities, corporate equity, pension plans, long-term leases, income taxes, changes in financial position, financial statement analysis, and price-level adjusted statements. A special emphasis will be placed upon developing the student's technical and problem-solving ability. Prerequisite: ACTG 350 or consent of instructor. Each semester, summer.

ACTG 352. COST ACCOUNTING, CONTROLS & ANALYSIS 3 s h.

Basic consideration of cost principles, procedure, control and analysis. Cost accounting as a "tool" of management is stressed based on management information systems. Prerequisite: ACTG 252. Each semester, summer.

ACTG 353. FEDERAL TAXES 3 s h.

A study of federal income, estate, and gift taxation. Problems of compliance with the law by individuals, partnerships, corporations, estates, and trusts are considered. Prerequisite: ACTG 252. Each semester, summer.

ACTG 354. AUDITING 3 s h.

A study of the purposes, the ethical and legal environment, financial analysis, and selected operational techniques of auditing. Prerequisite: ACTG 351. Each semester, summer.

ACTG 355. ADVANCED ACCOUNTING 3 s h.

A consideration of modern development in accounting, including recent studies and pronouncements by accounting authorities such as the American Institute of Certified Public Accounts and the Securities and Exchange Commission. Included is a study of the problems of accounting for consolidation and partnership equity. A Special emphasis will be placed upon developing the student's technical and problem-solving ability. Prerequisite: ACTG 351. Each semester, summer.

ACTG 451. ACCOUNTING PROBLEMS 3 s h

A problem-oriented study of topics most often tested on the CPA exam. Included are inventory methods, long-term contracts, partnership, leases, consignments, installment sales, receivership, fiduciary accounting, governmental accounting. Preparations for the practice portion of the CPA exam are emphasized. Prerequisite: ACTG 355. Each semester.

ACTG 452:	ADVANCED COST ACCOUNTING	3 s.h.
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A study of advanced concepts of cost accounting as a means of providing useful quantitative information for decision making. Topics include inventory valuation, cost allocations, joint-product costs, process costing, accounting systems, profit center costs, and segment performance measuring. Prerequisite: ACTG 352. Each semester.

ACTG 453: PROBLEMS IN FEDERAL TAXATION ACCOUNTING 3 s.h.

Federal Income Tax concepts and compliance problems of partnerships, corporations, estates, and trusts. Also a brief consideration of the concepts of social security, estate, and gift taxation. Prerequisite: ACTG 353. Each semester.

ACTG 454: COMPARATIVE ACCOUNTING SYSTEMS 3 s.h.

The major objective of the course is to help the student to develop a holistic approach to the concepts and practices for the examination and exploration of accounting systems. Specialized accounting systems will be discussed in detail dependent upon the interest and desires of students. Prerequisites: ACTG 251, 252, 350, 351, 354, CIS 223 and 301. Each semester.

ACTG 455: NOT-FOR-PROFIT ENTITIES 3 s.h.

A study of the principles and practices of budgeting and accounting for activities of entities that are operated for purposes other than making profits. Prerequisite: ACTG 351. Each semester.

ACTG 490: CURRENT ACCOUNTING PRONOUNCEMENTS AND PRACTICE 3 s.h.

A research study of current Financial Accounting Standards Board statements of standards, interpretations, concepts, exposure drafts and discussion memorandums. The internship experience and completed term paper will be discussed and integrated with the pronouncements. Prerequisite: COOP 420, Accounting Internship, Spring semester.

ACTG 499	TAX TOPICS	3 s.h.
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Various current topics affecting accounting practice and the accounting profession will be studied. The topics will vary from year to year depending on the changes in such things as the current tax laws, announcements by the Financial Accounting Standards Board, the CPA's, the Cost Accounting Standards Board and other such bodies which promulgate the standards and conduct of professional accountants. Prerequisite: ACTG 453 or consent of instructor. Spring semester.

ANTHROPOLOGY

ANTH 211: ANTHROPOLOGY 3 s.h.

This course deals with the origin, diversification, and evolution of man's way of life (cultures) from extinct primitive systems to modern industrial civilizations. This course is an introduction to anthropology (the study of man) with emphasis on the nature and concept of culture. Some work is done in physical anthropology. Emphasis is placed on the simple and complex cultures of the world with specific readings in each category. Each semester.

ANTH 213	INTRODUCTION TO BIOANTHROPOLOGY	3 s h
A survey of the human species in time, place, and culture and the investigation of factors underlying human variation. No prerequisite. Each second year		
ANTH 214	PRINCIPLES OF HUMAN ECOLOGY	3 s h
A study of the functional inter-relationships of man and his biophysical environment. No prerequisite. Every second year.		
ANTH 250:	PREHISTORIC NORTH AMERICA	3 s h
The course examines the development of North American Indian cultures from the beginning of human migration in the late Pleistocene to the coming of Europeans. Emphasis will be on man's interrelationship with the various New World environments in time and space which led to the rise of prehistoric cultures, food production, trade, etc. No prerequisite. Every second year.		
ANTH 251:	HISTORIC INDIANS OF NORTH AMERICA	3 s.h.
This course is an ethnographic survey of American Indians. Cultural processes, historic events, and ecological adjustments are explored in order to understand the diversity of Indian culture at the time of their discovery by Europeans. American Indian acculturation and contemporary Indian issues are also considered. No prerequisite. Every second year		
ANTH 290:	INTRODUCTION TO FOLKLORE	3 s h
The course covers the main aspects of oral traditions such as folklore, legend, myths, riddle, folksong, etc., and analyzes the relationship of oral traditions to literature. The systematic study of folklore, its methods, research approaches, and related subjects are investigated. No prerequisite. Every second year.		
ANTH 353:	ARCHAEOLOGY OF EASTERN NORTH AMERICA	3 s.h
The course provides a detailed survey of prehistoric developments in North America east of the Mississippi from Late Pleistocene to the Colonial Period. The principal aim is to familiarize students with the prehistory of the Amerind populations in the area, including the gradual emergence of the Woodland pattern. Summers only.		
ANTH 354:	CULTURAL HISTORY OF ASIA AND AFRICA	3 s h
A survey of major cultural trends of Old World cultures exclusive of Europe. Beginning with prehistoric Middle East, the spread of food production and its consequences is traced through space and time. Special emphasis is given to the rise and development of Asian cultural patterns. The second section of the course deals with African tribal cultures and their history. Every second year.		
ANTH 356:	FIELD ARCHAEOLOGY	4 s h
This course will give undergraduate students an opportunity to participate actively in all phases of archaeological field investigation of a limited section of the Allegheny river drainage in order to determine cultural sequence, settlement patterns, population density, economy, cultural influences, technologies, and human ecology. Procedures will include reconnaissance, testing of suspected sites, site survey, controlled excavation, site mapping, interpretation and recovery of specimens, and a final site report. Summers only		

ANTH 357 INDIANS OF SOUTH AND CENTRAL AMERICA 3 s.h

A survey of Indian cultures from the beginnings in the Late Pleistocene to the coming of the Conquistadores. special emphasis is placed upon culture developments, the rise of states, native agriculture, and the development of arts and crafts, including architecture and ceremonial art. No prerequisite. Every second year.

ANTH 358 WORLD PREHISTORY 3 s.h

This course covers the cultural development of Man from the Lower Paleolithic to the beginnings of urbanism in the Bronze and Iron Age. The course examines man's development in Europe, Africa, Asia, and the New World, draws comparisons between cultures, studies the diffusion of cultural traits, and summarizes recent developments in research. No prerequisite. Every second year.

ANTH 359 PRIMITIVE SCIENCE AND TECHNOLOGY 3 s.h

This course is designed to provide a better understanding of Man's relationship with and the utilization of environment. It traces the development which ultimately leads to the rise of technological societies. In investigating Man's attempts to come to an understanding of the forces around him, the course provides a survey of the history of scientific thought. No prerequisite. Every second year.

ANTH 361 WITCHCRAFT, MAGIC, AND RELIGION 3 s.h.

This course is a cross cultural comparative analysis of man's environment with the supernatural. The role of religion is explored and theories dealing with the nature and function of various aspects of supernaturalism are discussed from an anthropological perspective. No prerequisite. Every second year.

ANTH 362 HISTORY AND METHODS OF ANTHROPOLOGY 3 s.h

This course provides a general overview of the history of anthropology as an academic discipline combined with a survey of anthropological theory and research methods. Every second year.

ANTH 363 HISTORICAL ARCHAEOLOGY 3 s.h.

Designed to provide an introduction to the problems and methods of historical archaeology with special emphasis on North America. Usually to be taken in conjunction with ANTH 356 (Field Archaeology) as an alternative to ANTH 353 (Archaeology of Eastern North America.)

ANTH 370 PRACTICUM IN MUSEOLOGY 3 s.h

The course is designed to provide undergraduates with an introduction to the role and operation of museums through lectures, field trips, student projects and individual research. No prerequisite. Every second year.

Individual research, designed as an advanced course in anthropology, provides for the student's individual approach to a specific problem, defined in conference with the instructor. Regular sessions with the faculty member in charge evaluate the progress of the work and chart its direction. Students are expected to acquire research techniques in dealing with their topics. All branches of anthropology may be used to select a topic. Credit and grades will be given only if the project (term paper, survey, investigation, etc.) has been completed to the satisfaction of the project advisor and the departmental chairman. Prerequisite: ANTH 211. On demand.

Individual research, designed as an advanced course in archaeology, provides for the student's individual approach to a specific problem, defined in conference with the instructor. Regular sessions with the faculty member in charge evaluate the progress of the work and chart its direction. Students are expected to acquire research techniques in dealing with their topics. All branches of archaeology may be used to select a topic. Credit and grades will be given only if the project (term paper, survey, investigation, etc.) has been completed to the satisfaction of the project advisor and departmental chairman. Prerequisites: ANTH 211, 356. On demand.

Individual research, designed as an advanced course in bioanthropology, provides for the student's individual approach to a specific problem, defined in conference with the instructor. Regular sessions with the faculty member in charge evaluate the progress of the work and chart its direction. Students are expected to acquire research techniques dealing with their topics. All branches of bioanthropology may be used to select a topic. Credit and grades will be given only if the project (term paper, survey, investigation, etc.) has been completed to the satisfaction of the project advisor and the departmental chairman. Prerequisites: ANTH 211, 213, 356, or the consent of the instructor. On demand.

An integrated program especially designed to provide undergraduates with a practical and theoretical background in modern archaeological research. The program combines classroom and laboratory work with field research, including excavation. All participants must register for ANTH 353 (Archaeology of Eastern North America) or ANTH 363 (Historical Archaeology), and ANTH 356 (Field Archaeology). Pennsylvania teachers may take the program for credit toward permanent certification.

ART

This is an introductory art course which deals with form and content as well as the processes and products of art, intended to enrich and deepen the student's awareness and understanding of visual art forms. Each semester.

ART 111: ART HISTORY I 3 s.h.

A study of the visual arts in the western world including Prehistoric, Egyptian, Mesopotamian, Greek, Roman, Early Christian, Romanesque, and Gothic periods. Emphasis on stylistic and historical analysis. Fall semester.

ART 112: ART HISTORY II 3 s.h.

A study of the visual arts in the western world beginning with the Renaissance through Baroque, Mannerist, Rococo, and French art of the 19th century. Emphasis on stylistic and historical analysis. Spring semester.

ART 113: HISTORY OF ARCHITECTURE 3 s.h.

A survey of the visual heritage of Africa south of the Sahara, focusing on the arts of sculpture, masking, crafts, and rituals related to their use. Consideration will be given to the appearance of African traditions in the Western Hemisphere. Annually.

ART 114: HISTORY OF 20TH CENTURY ART 3 s.h.

A study of the major movements and masters of painting and sculpture in Europe and the United States in the 20th century; its relation to other elements of culture, and its place in the historical tradition of Western art. Papers, reading assignments. Annually.

ART 115: AFRICAN TRADITIONS IN ART 3 s.h.

A survey of the visual heritage of Africa south of the Sahara, focusing on the arts of sculpture, masking, crafts, and rituals related to their use. Consideration will be given to the appearance of African traditions in the Western Hemisphere. Annually.

ART 121: INTRODUCTION TO DRAWING 3 s.h.

An introductory course designed to develop the innate drawing ability of students by direct observation on inanimate objects through the use of a variety of traditional techniques and tools. Required of art majors. Fall semester.

ART 125: COLOR AND DESIGN 3 s.h.

A study of two-dimensional design concepts and their applications with an emphasis on the principles and elements of design. Required of all art majors. Fall semester.

ART 126: THREE DIMENSIONAL DESIGN 3 s.h.

The exploration of three dimensional design forms in order to gain a deeper understanding of the elements and principles of design. Required of all art majors. Spring semester.

ART 127	COMMERCIAL DESIGN	3 s.h.
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An elective studio course designed to survey graphic design, product design and environmental design. The course material is based on performance and may encompass problems relative to designs people read, the design of things people use and design concerning where people live, work and play. On demand.

ART 131	PAINTING I	3 s.h.
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An introduction to painting in oil or acrylic in which the student explores basic materials and techniques of painting. Fundamentals of pictorial organization and visual expression will be stressed. Each semester.

ART 141	SCULPTURE I	3 s.h.
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A studio course utilizing clay modeling as the predominate means to record and relate information required from direct observation of the figure. A three-dimensional analysis of the human figure through lecture demonstration and studio work in wax and clay from live models is the main focus of this offering. In addition to life size portraiture and multiple figure compositions. All finished work will be bisque fired. Each semester.

ART 151	CERAMICS I	3 s.h.
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Design and construction of clay pieces in varied techniques and approaches. Basic clay and glaze technology, hand building, throwing, turning, and firing processes. Each semester.

ART 161	FIBER I	3 s.h.
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An introduction to color and design and woven and construction textiles. Structural processes in two-and three-dimensional form, using loom and non-loom techniques. Basic dyeing methods for fibers. Fall semester.

ART 165	FABRIC I	3 s.h.
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Modular or repeat pattern applied to fabric surfaces by stamping and silkscreen. Spring semester.

ART 171	PRINTMAKING I	3 s.h.
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Problems in composition utilizing basic techniques and principles of the printmaking processes, i.e., collage prints, lino cuts, engraving, calographs, and serigraphy. Each semester.

ART 180	ARTS AND CRAFTS	3 s.h.
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An enrichment course for students desiring basic experience with crafts, skills, techniques, and processes using a variety of materials. Each semester.

ART 181	JEWELRY I	3 s.h.
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Design and construction of individual pieces of jewelry from sterling semi-precious stones, exotic woods, and other materials. The course deals with soldering techniques, casting techniques, methods of setting stones, chain construction, and all methods known for fabricating jewelry for human adornment. Annually.

ART 190: TEACHING ART IN THE ELEMENTARY GRADES 3 s.h.

A study of the place of art in the elementary public school curriculum, along with an acquisition of the skills and knowledge needed to assist or teach art. Classroom planning, presentation, motivation methods, & lesson plans will be developed in workshops or actual teaching situations. Each semester.

ART 222: FIGURE DRAWING 3 s.h.

An introductory course designed to develop the innate drawing ability of students by direct observation of the human form through the use of a variety of traditional techniques and tools. Required of art majors. Spring semester.

ART 232: PAINTING II 3 s.h.

Continued exploration of a wide range of materials and techniques with an emphasis on solving visual and color problems as a vehicle for personalized expression. Prerequisite: ART 131. Each semester.

ART 242: SCULPTURE II 3 s.h.

A workshop course investigating the uses and properties of primary materials and the processes associated with the forming of plaster, clay, and wax as well as approaches to problems using unusual or uncommon materials. Prerequisite: ART 141. Each semester.

ART 252: CERAMICS II 3 s.h.

Students work with the technical aspects of ceramics-glaze formulation, glaze calculations; experiment with natural local clays and desired clay bodies, decorating methods, glazing, and firing techniques while pursuing individual interests. The student works on an independent level investigating his/her interests leading to a final individual critique of work accomplished. Prerequisite: ART 151. Each semester.

ART 262: FIBER II 3 s.h.

Principles of woven structures and pattern development. Design principles, professionalism, and expressive content are emphasized. Prerequisite: ART 161. Fall semester.

ART 266: FABRIC II 3 s.h.

Surface design processes and development of expressive imagery. Prerequisite: ART 165. Spring semester.

ART 272: PRINTMAKING II 3 s.h.

Problems in color utilizing techniques and principles of the printmaking processes. Prerequisite: ART 171. Each semester.

ART 282: JEWELRY II 3 s.h.

A continuation of study in the design and construction of jewelry pieces. The student continues advancing his skills and knowledge of metals, stones, woods, and other materials. Prerequisite: ART 181. Annually.

ART 323: ADVANCED DRAWING 3 s.h.

Designed to allow students the opportunity to further their drawing skills. Special emphasis will be upon the development of expressive drawing. Offered concurrently with ART 121 and 222. Prerequisites: ART 121, 222. Each semester.

ART 333: PAINTING III 3 s.h.

Learning about the materials and techniques of the modern masters by studying and emulating the concepts involved in the art movements of the 20th century. Prerequisite: ART 232. Each semester.

ART 343: SCULPTURE III 3 s.h.

A studio course designed to develop working skills in model and mold making, leading to casting and forming in terracotta and metals as well as direct carving. Prerequisite: ART 242. Each semester.

ART 353: CERAMICS III 3 s.h.

The student explores the fundamentals of glaze tests, materials test, eutectics, the calculation of glazes, ceramic kilns, and their design. The materials used will be studied, along with the design of ceramic equipment and their special uses. Production of pots will be downplayed for the concentration on the technical aspects and equipment in the production of the pot. Prerequisite: ART 252. Restricted to art majors or permission of instructor. Each semester.

ART 363: FIBER III 3 s.h.

Advanced studies of loom controlled structures and off-loom structures. Research into the historical context of fibers and textiles. Prerequisite: ART 262. Fall semester.

ART 367: FABRIC III 3 s.h.

Research on a historical surface design process and advanced studio work based on that process. Prerequisite: ART 266. Spring semester.

ART 373: PRINTMAKING III 3 s.h.

Advanced problems in composition and color utilizing techniques and principles of intaglio, relief, planographic or stencil processes. (The student may choose 2 processes.) Prerequisite: ART 272. Each semester.

ART 300: SPECIAL TOPICS IN ART

Topics of interest in various areas of art. The format will be selected by the instructor. Offered when faculty available.

ART 400: SUPERVISED STUDY IN ART 1-6 s.h.

Opportunity to explore in depth an area of art according to need or interest. Regular weekly sessions with a faculty member to evaluate the progress of the work and chart its direction. Credit and grade will be given only if a scholarly paper or special project has been completed to the satisfaction of the faculty advisor. Prerequisite: Permission of instructor and department chairman.

ART 434: PAINTING IV 3 s.h.

An investigation into the expressive and visual aesthetic concepts of figure and portrait painting. Prerequisite: ART 333. Each semester.

ART 444: SCULPTURE IV 3 s.h.

The student will employ direct modeling in wax from which the bronze is cast. This course stresses a sculptural approach that is permanent, utilizing both traditional and advanced means of "lost wax." Open studio work periods are intended to encourage the student along independent and personal lines of development. Prerequisite: ART 343. Each semester.

ART 454: CERAMICS IV 3 s.h.

The students works and sets goals in his/her own creative interests for a semester of work. If the student chooses handbuilding or thrown pottery, he/she begins work toward a portfolio for a career or entrance into an M.F.A. program. Prerequisite: ART 353. Restricted to art majors or permission of instructor. Each semester.

ART 464: FIBER IV 3 s.h.

Suitably complex structural and design problems with student-directed research into technical and historical areas of interest. Prerequisite: ART 363. Fall semester.

ART 468: FABRIC IV 3 s.h.

Research into hand or industrial technologies in surface design, and development of personal imagery. Prerequisite: ART 367. Spring semester.

ART 474: PRINTMAKING IV 3 s.h.

Advanced problems utilizing one technique of printmaking. Prerequisite: ART 373. Each semester.

BIOLOGY

BIOL 111: BASIC BIOLOGY 4 s.h.

This course deals with the principles of biology. Topics include cellular structure and physiology, growth and repair, reproduction and development, control, sources of food energy, inheritance and man's interrelationship with his biological environment. The classification of plants and animals is reviewed briefly. Credit not to be applied toward Biology major. Each semester.

BIOL 153: INTRODUCTORY ANIMAL BIOLOGY 4 s.h

A survey of the animal kingdom, emphasizing structural, physiological and evolutionary relationships. The laboratory exercises reflect this approach; dissections and experimental procedures are also introduced. Three lectures and three laboratory hours weekly. Each semester.

BIOL 154 INTRODUCTORY PLANT BIOLOGY 4 s.h

Complementary to BIOL 153. A phylogenetic approach to the study of the plant kingdom, with emphasis on the evolution of plants, life cycle, reproductive patterns, physiology, morphology, and genetics. Two hours lecture and four hours laboratory weekly. Each semester.

BIOL 201: GENETICS 3 s.h

A study of the principles of inheritance in plants, animals, and microorganisms. Topics include: Mendelian genetics, linkage, recombination, cytogenetics, microbial genetics, human genetics, and molecular genetics. Three lectures and two laboratory hours weekly. Prerequisite: BIOL 153, 154 and CHEM 254 or consent of the instructor. Each semester.

BIOL 202: PRINCIPLES OF ECOLOGY 3 s.h.

Interaction of organisms and their biotic and abiotic environment; population dynamics and interactions; the reality of communities; energy transfer with an ecological system; components of the ecosystem. Two lectures and three laboratory hours weekly. One field trip. Prerequisites: BIOL 153 and 154 or equivalent or consent of the instructor. Each semester.

BIOL 203: CELL BIOLOGY 3 s.h.

Structure, biochemistry, and function of plant and animal cells. Two lectures and three laboratory hours weekly. Prerequisites: BIOL 153, 154, and CHEM 153, 154, 163, 164 and 254 or their equivalents or consent of the instructor. Each semester.

BIOL 258: ANATOMY AND PHYSIOLOGY I 3 s.h.

A study of the normal structure of the human body and how it functions. Special attention is given to the integumentary, skeletal, muscular, nervous, and endocrine systems and their interrelationships. Two lectures and three lab hours weekly. Fall, annually. Venango Campus. Not for Biology majors.

BIOL 259: ANATOMY AND PHYSIOLOGY II 3 s.h.

A continuation of BIOL 258, Anatomy and Physiology I. This course includes the circulatory, respiratory, digestive, urinary, and reproductive systems and their interrelationships. Two lectures and three laboratory hours weekly. Prerequisites: BIOL 258. Spring, annually. Venango Campus. Not for Biology majors.

BIOL 260: MICROBIOLOGY 3 s.h.

A study of microorganisms including viruses, bacteria, fungi, and protozoa, with emphasis on those associated with human health and disease. Consideration is given to immunity resistance to infectious diseases and to their epidemiological and public health aspects. Laboratory emphasis is on pathogenic bacteria and the bacteriological and microscopic techniques. Two lectures and three laboratory hours weekly. Fall, annually. Venango Campus. Not for Biology majors.

BIOL 341 GENERAL MICROBIOLOGY 4 s.h.

A study of microorganisms including viruses, fungi, and bacteria. Culturing, isolation, classification, and ecology of microscopic life from air, water, soil, and dairy products including beneficial and pathogenic forms. Two lectures and six laboratory hours weekly. Prerequisite: BIOL 203 and CHEM 154. Each semester

BIOL 351 FIELD BOTANY 3 s.h.

Collection and preparation of plants using herbarium methods. Emphasis on identification of flowering plants in a variety of habitats. Prerequisites: BIOL 153 and 154. Summers, on demand

BIOL 352: TAXONOMY OF VASCULAR PLANTS 3 s.h.

Systems of classification, collection and identification of flowering plants and ferns of the region; use of keys and herbarium collections. Prerequisites: BIOL 153 and 154. Spring, even numbered years.

BIOL 353 ORNITHOLOGY 3 s.h.

An introduction to the biology of birds. Lectures deal with internal and external adaptation for aerial travel, classification, migration, habitats, plumage changes, nesting habits and ecologic relations. Two lectures and three laboratory or field trip hours weekly. Spring, even numbered years

BIOL 354 ENTOMOLOGY 3 s.h.

A general study of insects including structure, physiology, classification, economic importance, and relationships. Two lectures and three hours of laboratory or field work weekly. Fall, even numbered years.

BIOL 356: FIELD ZOOLOGY -- INVERTEBRATE 3 s.h.

A study of invertebrates of the field including the collecting and preserving of such forms. Emphasis will be placed on taxonomy and ecological relationships. Summers, on demand.

BIOL 357. FIELD ZOOLOGY -- VERTEBRATE 3 s.h.

A study of the taxonomy and ecological importance of the vertebrates. Field trips will be taken to various ecological areas to observe and collect. Emphasis will be placed on the identification of living rather than preserving specimens. If BIOL 420 has been taken, permission of instructors of both courses must be secured to elect BIOL 357. Summers, on demand.

Acquaints the student with skills and techniques used in research. The student identifies a problem for investigation and completes all phases of its study including the writing of a research report. Approval must be secured prior to preregistration from the staff member who will direct the student.

Advanced topics in various areas of biology. The format used will be selected by the professors as most suitable to the study. The course may be offered on request of students, subject to the availability of staff. Enrollment by consent of the instructor. On demand.

A course presenting the fundamental aspects of the science of radiology with emphasis on biological applications. The topics studied are physical and genetic effects of radiation on plants and animals; radioactive fall-out and its biological consequences; application of radioisotopes in biological research; and use of radiation sources and detectors. Prerequisite: One year of chemistry. Spring, annually.

A survey course dealing with the various aspects of classification, evolutionary relationships, morphology, zoogeography, ethology, ecology, and physiology of vertebrates, with special reference to those from Pennsylvania. If BIOL 357 has been taken, permission of instructors of both courses must be secured to elect BIOL 420. Prerequisites: BIOL 153 and BIOL 202, or permission of the instructor. Spring, odd numbered years.

Identification of families and species of fishes from the eastern United States, with emphasis on Pennsylvania forms. Two clock hours weekly. PA fishing license required. Prerequisite: BIOL 202. Fall, odd numbered years.

Ecology of fish populations including taxonomy identification, age and growth, population estimation and analysis, food habits, management, and environmental requirements. Application of microcomputers in fisheries work will be emphasized in data analysis. Five clock hours weekly, including laboratory. Prerequisite: Environmental Biology or consent of the instructor. Fall, odd numbered years.

A study of the physiological reactions involved in the growth, reproduction, and death of microbes. Emphasis will be placed upon the metabolism of carbohydrates, proteins, vitamins, and fats. Enzymes, oxidation-reduction potentials, energy relationships, membrane potentials, and nutrients will be considered. Two lectures and four laboratory periods weekly. Prerequisites: BIOL 341 and CHEM 453 or permission of the instructor. On demand.

BIOL 443: VIROLOGY 3 s.h.

A study of plant, animal, and bacterial viruses with emphasis on biochemistry, structure, life cycles, and disease-causing mechanisms. Three clock hours per week. Prerequisites: CHEM 453, BIOL 341, or consent of the instructor. Fall, annually.

BIOL 444: IMMUNOLOGY 4 s.h.

An introduction to the fundamental concepts of immunology, immunochemistry, serology, and the role of immunology in epidemiologic studies. Three lectures and three laboratory periods weekly. Prerequisite: BIOL 341 or permission. Fall, annually.

BIOL 446: PATHOGENIC MICROBIOLOGY 4 s.h.

A study of the bacteria, fungi, and viruses which cause human disease. Laboratory emphasis is on isolation and identification of pathogens and on elementary immunology. Two lectures and four laboratory hours weekly. Prerequisite: BIOL 341. Spring, annually.

BIOL 451: ANIMAL PHYSIOLOGY 3 s.h.

Study of the comparative physiology of animals, includes water and ion regulations, circulation, respiration, nutrition, nervous activity, endocrine functions, and responses to temperature, light, gases, and pressure. Two lectures and three hours laboratory weekly. Prerequisites: BIOL 203 and CHEM 254 or permission of instructor. Each semester.

BIOL 452: PLANT PHYSIOLOGY 3 s.h.

Life processes and responses of plants to the environment. Topics include water relations, transpiration, translocation, photosynthesis, respiration, metabolism, plant hormones and morphogenesis, photoperiodism, temperature responses, environmental and stress physiology. Two lectures and three hours laboratory weekly. Prerequisite: BIOL 201, 203, and CHEM 254. Spring, odd-numbered years.

BIOL 453: PATHOPHYSIOLOGY: ENDOGENOUS AGENTS 4 s.h.

The study of mechanisms by which disease occurs in humans. The course emphasizes responses to the disease process, and the effects of pathophysiologic mechanisms on the normality of cell, tissue, organ and system functions, and the response of the body to the disease process. Prerequisites: Prior courses in Physiology desired. Upper division nursing students, or two years of study in biology, or permission of instructor. Fall, annually.

BIOL 454: PATHOPHYSIOLOGY: EXOGENOUS AGENTS 4 s.h.

The study of mechanisms by which disease occurs in humans. Emphasis in this course is on disease related to heredity, physical, chemical, and biological stressors. Spring, annually.

BIOL 455/555: ENDOCRINOLOGY 3 s.h.

A survey of the chemical and physiological principles of hormonal integrations in animals. Three hours of lecture/week. Prerequisite: BIOL 451. Spring, annually.

BIOL 460: COMPARATIVE VERTEBRATE ANATOMY 3 s.h.

This course traces the most important trends in the evolution of basic structures in vertebrate lines, and conveys an appreciation of how the mammals came to possess the combination of characters that make this group unique. Two lectures and three laboratory hours weekly. Prerequisites: BIOL 153, 154. Spring, even numbered years.

BIOL 461: VERTEBRATE EMBRYOLOGY 3 s.h.

A descriptive study of the development of vertebrates, including early processes and the formation of organ systems. Two lectures and three laboratory hours weekly. Prerequisite: One year of biology. Spring, odd numbered years.

BIOL 462: HISTOLOGY 3 s.h.

A study of the microscopic structure of tissues comprising the organ system of animals, including man. One lecture and two double-period laboratories. Prerequisite: One year of biology. On demand.

BIOL 464: DEVELOPMENTAL BIOLOGY 3 s.h.

A study of the major processes in development and their underlying mechanisms. Includes a descriptive study and mechanisms such as differentiation, induction, and morphogenesis. Materials deal primarily with animal development. Two lectures and three laboratory hours weekly. Prerequisite: BIOL 153, 154, 201, and General Chemistry. Fall, annually.

BIOL 470: ANIMAL ECOLOGY 3 s.h.

A course dealing with the interrelationship of animals and their environment, including physical and biological factors. Discussions and investigations will include animal distribution, predator-prey interrelationships, competition, species diversity, reproduction, and community organization. Field and laboratory studies included. Prerequisite: BIOL 202. Spring, even numbered years.

BIOL 471: PLANT ECOLOGY 3 s.h.

A study of the structure, development, and causes of distribution of plant communities based upon individual studies of the major plants in each group. Emphasis upon plant association in western Pennsylvania visited during the course. Prerequisite: BIOL 202. Fall semester, even numbered years.

BIOL 472: PARASITOLOGY 3 s.h.

A study of parasites in relation to man and his domesticated animals. Emphasis is placed upon morphology and life histories in addition to the ecology of the parasite. Two lectures and three laboratory hours weekly. Fall, annually.

BIOL 478: BIOME STUDIES 3 s.h.

A travel-study program which offers opportunities for study in the various biomes, e.g., grasslands, montane, seashore, etc. Summers, on demand.

BIOL 482 EVOLUTION AND POPULATION GENETICS 3 s.h.

This course examines modern evolutionary theory. Topics include the gene pool concept, adaptive evolutionary forces and non-adaptive evolutionary forces in population, population laws, evidence of evolution, mechanisms of diversity, punctuated equilibrium, and hominid evolution. Fall, even numbered years.

BIOL 483 MOLECULAR BIOLOGY 3 s.h.

A study of the biochemistry of the cell. On demand.

BIOL 491 BIOGEOGRAPHY 3 s.h.

The subject matter will cover aspects of the distribution of plants and animals. Main topics of concern will include interpretive approaches to biogeography, paleobiogeographic evidence of past distributions, the centers of the origin of various groups, mechanics and routes of dispersal and colonization, and the dynamics of extinction. Prerequisites: BIOL 201 and BIOL 202 or permission by the instructor. Fall, odd numbered years.

BIOL 492/592 ETHOLOGY 5 s.h.

A study of the biological concepts of animal behavior. An investigation of topics such as sensory receptors, internal mechanisms, genetics, learning and habituation, social organization, and communication. Laboratory exercises involve techniques of observation and experiments in animal behavior. Two lectures and three hours laboratory or field work weekly. Prerequisites: BIOL 153 or permission of the instructor. Fall, annually.

BUSINESS ADMINISTRATION

BSAD 240: LEGAL ENVIRONMENT I 3 s.h.

Legal Environment I is a survey course of law and society. Its purpose is to orient students to the judicial systems of the United States and the legal remedies and mechanisms at their disposal. It compares and contrasts both civil and equitable court functions through the illustrations of common law contracts, torts, criminal law, property law and the administration of decedents estates. Each semester.

BSAD 241: LEGAL ENVIRONMENT II 3 s.h.

This course is an application of the concepts attained in BSAD 240, Legal Environment I, in a business context. Emphasis is placed on general substantive business law topics; i.e.: agency, partnerships, corporations, sales, negotiable instruments; and real property. Each semester.

BSAD 242: METHODS OF LEGAL RESEARCH 3 s.h.

Students learn the traditional legal research materials and brief writing techniques including use of digests and citators. The course also emphasis legal research in the area of Administrative Law. Prerequisite: BSAD 240. Each semester.

BSAD 245: FIELD EXPERIENCE 1 s.h.

An early exposure to types of legal practices for various types of legal programs including community programs, institutions, and courts. Each fall semester at Venango Campus. Prerequisite: BSAD 240.

BSAD 437 INTERNATIONAL BUSINESS SEMINAR 3-6 s.h.

The focus on this course is on developing an understanding of the problems and opportunities faced by international organizations. In order to best achieve both micro and macro perspectives in the study of international aspects of the business, students enrolled will visit businesses abroad for discussions with top-level executives. In addition to the international travel, the students will meet with the instructor for a series of briefing and debriefing sessions. An additional three credits may be taken (for a total of 6) on an individualized basis. Prerequisite: MGMT 320. Junior standing. Offered at special times between the regular school semesters.

BSAD 490: ADMINISTRATIVE DECISION MAKING 3 s.h.

This course requires the student to synthesize what had been learned in the separate business fields and to utilize this knowledge in the analysis of complex problems of various businesses -- from single proprietorships to multinationals. This is the capstone course for a degree in business administration. Prerequisite: MGMT 320, MKTG 360 and FIN 370. Each semester.

BSAD 491: INDEPENDENT STUDIES IN BUSINESS 1-3 s.h.

Opportunity to explore in depth a problem or area of business under the direction of a faculty member of the college. Prerequisite: 2.75 grade point average and consent of both instructor and department head. Maximum credit granted in BSAD 491 is 6 credits. Each semester.

BSAD 494 BUSINESS EXECUTIVE'S LECTURE 1 s.h.

The course is designed to introduce the student to successful business practices. The course will call upon several prominent business men/women from the local area to give a series of lectures concerning their business philosophies and practices. An objective of the course is to assist the student in bringing together knowledge attained from the business curriculum and to suggest practical applications of that knowledge. Prerequisite: MGMT 320. Offered when resources are available.

CHEMISTRY

*No student may take for credit, a chemistry course at the 100 level after having successfully completed any chemistry course numbered 300 or above.

This course is intended for students who may not have sufficient background for college chemistry. Placement in this course is recommended by the Chemistry Department based on high school record and test scores. Emphasis is on developing verbal and mathematical skills, abstract reasoning, and a basic scientific vocabulary. The credits for this course do not count toward graduation. Spring, annually.

PHSC 111: BASIC PHYSICAL SCIENCE: CHEMISTRY

3 s.h.

This course is intended for non-science majors and does not assume familiarity with chemistry. It does not count toward requirements for science majors, but can be applied to fulfill the general education math-science requirements for non-science majors.

Selected chemical principles are explored with the purpose of providing a background that will enable the student as a citizen to understand issues involving the interaction of science and society; brief experiments are often included. Students who prefer a more traditional chemistry course may elect either CHEM 151 or 153 to fulfill their general education requirements. No prerequisite: Each semester.

CHEM 151: CHEMICAL PRINCIPLES*

4 s.h.

Intended for chemistry majors, pre-medical students, and others who desire a rigorous introductory course. CHEM 151 and 152 comprise the foundation for all subsequent courses in the major sequence. Principal topics include atomic theory, gases, solids, and liquids. A strong background is desirable but not required. Students must concurrently schedule CHEM 161. Four hours lecture. Fall, annually.

CHEM 152: CHEMICAL PRINCIPLES II*

4 s.h.

Continuation of CHEM 151. Principal topics include second law, equilibrium, acids and bases, electrochemistry, kinetics, radiochemistry and descriptive chemistry. Prerequisite: CHEM 151. Students must concurrently schedule CHEM 162. Four hours lecture. Spring, annually.

CHEM 161: CHEMICAL PRINCIPLES LABORATORY I

1 s.h.

Laboratory exercises to exemplify and augment the material in CHEM 151. This course must be taken concurrently with CHEM 151 unless it is being repeated. Three hours laboratory. Fall, annually.

CHEM 162: CHEMICAL PRINCIPLES LABORATORY II

1 s.h.

Laboratory exercises to exemplify and augment the material in CHEM 152. This course must be taken concurrently with CHEM 152 unless it is being repeated. Three hours laboratory. Spring, annually.

CHEM 153: GENERAL CHEMISTRY I*

3 s.h.

This is the initial course in the fundamental concepts of chemistry for students not majoring in chemistry; it can serve as a preparation for CHEM 254 or as a terminal course. The major topics included are atomic theory and structure, stoichiometry, chemical bonding, and the physical states of matter. Must be taken concurrently with CHEM 163. Three hours lecture. Fall, annually.

CHEM 154 GENERAL CHEMISTRY II* 3 s.h

Continuation of CHEM 153. This course includes a discussion of mixtures, thermodynamics equilibria, kinetics, acids and bases, oxidation-reduction, and radioactivity. Must be taken concurrently with CHEM 164. Prerequisite: CHEM 153. Three hours lecture. Spring, annually.

CHEM 163: GENERAL CHEMISTRY LABORATORY I 1 s.h

Laboratory exercises to exemplify and augment the material in CHEM 153. This course must be taken concurrently with CHEM 153 unless it is being repeated. Three hours laboratory. Fall, annually.

CHEM 164 GENERAL CHEMISTRY LABORATORY II 1 s.h.

Laboratory exercises to exemplify and augment the material in CHEM 154. This course must be taken concurrently with CHEM 154 unless it is being repeated. Prerequisite: CHEM 153, 163. Three hours laboratory. Spring, annually.

CHEM 205: NUTRITION 3 s.h

An introduction to the basic principles of human nutrition. The structure of proteins, fats, carbohydrates, vitamins and minerals and their roles in metabolism are explored. Nutritional needs of various age groups, nutrition and disease, and recent research in nutritional problems are discussed. Required of all B.S. Nursing majors. Prerequisite: one semester of general chemistry or consent of instructor.

CHEM 211: SCIENCE AND SOCIETY 3 s.h.

A major goal of this course is to equip the citizen to make intelligent choices and to take effective action in areas where science or technology appear to pose threats, offer benefits, demand funding, or require regulation. For this purpose, and for the additional goal of achieving a minimum level of scientific literacy, the needed technical principles are presented in non-mathematical fashion. Emphasis is placed on the similarities and differences between life and other chemical processes, and on the consequences of the Second Law of Thermodynamics. Open to students in all academic areas. Prerequisite: Sophomore standing. Three hours lecture. Offered occasionally.

CHEM 251: ORGANIC CHEMISTRY I 3 s.h

The study of bonding, structure, stereochemistry, nomenclature, and the mechanisms of free radical substitution, nucleophilic substitution, electrophilic addition and electrophilic aromatic substitution. Organic syntheses, reactions and methods will be emphasized. Students must concurrently schedule CHEM 261. Prerequisites: CHEM 151, 152, or 153, 154. Three hours lecture. Fall, annually.

CHEM 252: ORGANIC CHEMISTRY II 3 s.h

A continuation of CHEM 251. A discussion of functional groups, their preparation and reactions. Synthesis and mechanisms will be emphasized. Students must concurrently schedule CHEM 262. Prerequisite: CHEM 251. Three hours lecture. Spring, annually.

CHEM 257	ORGANIC SPECTROSCOPY	2 s.h.
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The application of modern spectroscopic techniques to the determination of the structures of organic compounds is explained. Techniques such as infrared, nuclear magnetic resonance, and mass spectroscopy are discussed with emphasis on their application toward the elucidation of structures of organic compounds. Necessary theoretical background and practical applications are presented. Required of all chemistry majors and must be taken concurrently with CHEM 252. Prerequisites for other students. CHEM 154, 264 and consent of instructor.

CHEM 261	ORGANIC CHEMISTRY LABORATORY I	1 s.h.
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The laboratory consists of experiments using important techniques, natural product isolation and synthesis using modern instrumental methods. This course must be taken concurrently with CHEM 251 unless it is being repeated. Three hours laboratory. Fall, annually.

CHEM 262	ORGANIC CHEMISTRY LABORATORY II	1 s.h.
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This laboratory will consist of complex synthesis and organic qualitative analysis, both using modern instrumentation. The important spectroscopic methods of infrared and nuclear magnetic resonance spectroscopy and mass spectrometry will be emphasized. This course must be taken with CHEM 252 unless it is being repeated. Prerequisite: CHEM 261. Three hours laboratory. Spring, annually.

CHEM 254	INTRODUCTORY ORGANIC CHEMISTRY	3 s.h.
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A modern course which surveys the entire field of elementary organic chemistry, both aliphatic and aromatic, with emphasis on nomenclature, simple reactions and mechanisms, and the structure of organic compounds, together with their relation to biology. This course does not count toward the requirements for a major in chemistry and must be taken concurrently with CHEM 264 unless it is being repeated. Prerequisite: CHEM 152 or 154. Three hours laboratory. Each semester.

CHEM 234	INTRODUCTORY ORGANIC CHEMISTRY LABORATORY	6-1 s.h.
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Important techniques, synthesis and functional group analyses of organic compounds. This course must be taken concurrently with CHEM 254 unless it is being repeated. Three hours laboratory. Each semester.

CHEM 255	INDUSTRIAL CHEMISTRY	3 s.h.
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This course deals with the application of theories, laws, and calculations of chemistry to industrial process. This work is supplemented by reading of current literature and trips to chemical industries. Prerequisites: CHEM 151, 152, or 153, 154. Offered occasionally.

CHEM 270	CHEMICAL INFORMATION	1 s.h.
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This course covers sources, organization, and the effective use of chemical information. Aspects of both printed and computer based chemical information sources will be discussed. Problem assignments will provide illustration and practice in effective searching of the chemical literature. Co-requisite: CHEM 251, 261. Fall, annually.

This course is concerned with the application of computers in chemistry. After a review of the scientific programming languages, attention will be focused on the use of computer methods for problem solving in such areas as theoretical, analytical, and organic chemistry. Coverage will include data acquisition methods, experimental controls, chemical structure elucidation, and chemical information retrieval methods. Prerequisites: CHEM 152 or 154 and CIS 151 or CIS 163 (may be taken concurrently). Fall, alternate years.

TECHNIQUES AND INSTRUMENTS I-V

Utilizing the department's extremely complete line of modern equipment, this sequence of laboratory-centered courses has been designed to develop or reinforce skills, techniques, theories, and familiarity with instruments used in all branches of chemistry. There is a progression from those operations and concepts that are essential in many areas, including biological sciences, to those that are somewhat specialized but yet of considerable importance to most chemists. The last courses in the sequence permit some individual choice of topics.

The following are representative of the total content: classical wet analytical techniques, quantitative spectrophotometry, calorimetry, electrochemistry, glass-blowing, vacuum-line operations, thermodynamic and kinetic studies, electronic data processing, characterization of macro-molecules, surface studies, molecular and crystal structure determinations by diffraction and spectral methods, quantitative separations, electro-analytical methods, nuclear magnetic resonance, radiochemical techniques, syntheses, basic electronic circuitry.

Course details and prerequisites are listed below.

CHEM 351	INTRODUCTION TO TECHNIQUES AND INSTRUMENTS	3 s h
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The theory and applied techniques and instrumentation of analytical chemistry for majors in the allied health professions. Some of the topics included are spectrophotometry, methods based on equilibrium systems, electroanalytical methods and separation procedures as applied to health professions. This course does not count toward the requirements for a major in chemistry. Students must concurrently schedule CHEM 361. Prerequisite: CHEM 152 or 154. Three hours lecture, Spring, annually.

CHEM 352	TECHNIQUES AND INSTRUMENTS I	4 s h
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This course serves students both in chemistry and in related fields. Prerequisites: CHEM 152 or 154. Two hours lecture, six hours laboratory. Fall, annually.

CHEM 356	TECHNIQUES AND INSTRUMENTS II	2 s h
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Prerequisite: CHEM 354. This course will normally be taken concurrently with CHEM 355. Six hours laboratory, Spring, annually.

CHEM 357: TECHNIQUES AND INSTRUMENTS III 3 s.h.

Prerequisites: CHEM 352, 354; CHEM 355 concurrently, or consent of department. Two hours lecture, three hours laboratory. Spring, annually.

CHEM 361: INTRODUCTION TO TECHNIQUES AND INSTRUMENTS LABORATORY 1 s.h.

Laboratory exercises to exemplify and augment materials in CHEM 351. This course must be taken concurrently with CHEM 351 unless it is being repeated. Three hours laboratory. Spring, annually.

CHEM 461: TECHNIQUES AND INSTRUMENTS IV 2 s.h.

Prerequisite: CHEM 357. One hour lecture, three hours laboratory. Fall, annually.

CHEM 354 PHYSICAL CHEMISTRY I 4 s.h.

This course is concerned primarily with the principles of thermodynamics. Kinetics is discussed in the latter portion of the term. The laws of thermodynamics are applied to many problem solving situations. Calculus is used heavily, and a basic familiarity with the handling of simple differentials and integrals is necessary. Kinetics is treated from experimental and mechanistic points of view. Prerequisites: CHEM 152, 162; PH 252 or 259; MATH 271. Four hours lecture, Fall, annually.

CHEM 355: PHYSICAL CHEMISTRY II 4 s.h.

Both the classical wave formulation and the concept of operators are developed as approaches to the study of quantum mechanics, and simple one-electron problems are solved. This groundwork is then extended to molecular problems. Spectroscopy is examined in detail, particularly as a tool in the determination of molecular structures. Powder and single-crystal x-ray diffraction techniques are discussed and their use as research tools investigated. Prerequisite: CHEM 354. Four hour lecture. Spring, annually.

CHEM 359 ADVANCED ORGANIC CHEMISTRY 3 s.h.

A study of reaction mechanism, synthetic methods, and structure elucidations. Emphasis is placed on correlation of structure and reactivity and on stereochemistry. Prerequisites: CHEM 252, 355. Three hours lecture. Spring, alternate years.

CHEM 453: BIOCHEMISTRY 3 s.h.

An introduction to modern cellular biochemistry. A study of proteins, enzymes, nucleic acids and fats: the metabolic transformations of amino acids, carbohydrates, lipids, protein synthesis and photosynthesis; and the respiratory chain and oxidation phosphorylation. Prerequisite: CHEM 251 or 254. Three hours lecture. Spring, alternate years.

CHEM 455: ADVANCED PHYSICAL CHEMISTRY 3 s.h.

This course is concerned primarily with statistical mechanics and additional aspects of quantum mechanics. Prerequisite: CHEM 355. Offered occasionally.

CHEM 456 ADVANCED INORGANIC CHEMISTRY 3 s.h

Various concepts of bonding, encountered in previous courses, are extended and compared to gain some appreciation of their uses and shortcomings. Considerable attention is given to steric relationships in many environments. The descriptive chemistry includes recently discovered compound types as well as the classical period-group -- subgroup patterns of behavior. Prerequisite: CHEM 355 (may be taken concurrently) or consent of department. Three hours lecture. Spring, annually.

CHEM 459 DEMONSTRATIONS IN CHEMISTRY 3 s.h.

Studies are made of various demonstration techniques with students devising and applying each with many examples. Special attention is given to the study of the material of the Chem. Study Committee of the American Chemical Society prepared for the purpose of vitalizing high school chemistry courses. Prerequisites: CHEM 151, 152, and at least one other major course. Offered occasionally.

CHEM 460: RADIOCHEMISTRY TECHNIQUES 2 s.h.

A general course dealing with radioactive materials, their radiations, preparation of isotopes in various chemical forms, detection, identification and applications. Aspects of safety and basic laws and regulations are stressed. Emphasis is placed on nuclear instrumentation, including G.M., scintillation and gas flow counting techniques. Work with a neutron howitzer, including basic activation analysis with its associated gamma ray spectroscopy, is studied. Prerequisites: CHEM 152 or 154; MATH 151 or 171. One hour lecture, three hours laboratory. Offered occasionally.

CHEM 465.466: CHEMICAL RESEARCH 1-3 s.h. each

An independent laboratory problem in some field of chemistry of special interest to the student. Admission only by consent of the instructor and the approval of the Department Chairman. Prerequisites: CHEM 355, 357. Each semester.

CHEM 470: CHEMISTRY SEMINAR 1 s.h.

Search of the chemical literature on a topic of current interest, compilation of a bibliography, preparation of an abstract, and presentation of a seminar. Prerequisites: CHEM 252, 355. Spring, annually

CHEM 471 SPECIAL TOPICS IN CHEMISTRY 3 s.h.

Topics of current interest in the field of chemistry will be presented. The choice of topics will vary from year to year, but the subject areas each year will include topics from three different areas. Topics such as non-aqueous solvents, solid state chemistry, polymers, chemical physics, group theory, stereochemistry, organometallics and recent developments in spectroscopy will be discussed. Prerequisite: CHEM 355 (may be taken concurrently). Fall, alternate years.

An opportunity to explore in depth a problem area in chemistry education according to the student's need or interest under the direction of a faculty member. Admission only by consent of the instructor and the approval of the Department Chairman. Prerequisites: Junior standing or consent of the Department. Not open to Chemistry majors in the Liberal Arts or Bachelor of Science Curriculum. Each semester

COMMUNICATION

COMM 100 EXPLORATIONS IN MASS COMMUNICATION 2 s.h.

A systematic study of the field of communication. Content includes historical perspectives, characteristics and functions of various media and communication fields, a study of career options, and competencies required of a professional in each area. Current issues, trends, and employment opportunities will be examined as they relate to career areas. Fall, annually.

COMM 152 MESSAGE DESIGN 3 s.h.

Investigates the elements of effective communication, including the dimensions of sensory perception, meaning, environment, attitude, and technology. Students shall be required to apply theoretical concepts to practical problems. Each semester.

COMM 171 WRITING FOR MEDIA 3 s.h.

Develops fundamental skills in writing and/or visualizing for a variety of media forms. Emphasis will be placed on print and broadcast newswriting, advertising copywriting and public relations writing. Prerequisite: ENG 111 or consent of instructor. Each semester.

COMM 200: NEWSWRITING 3 s.h.

Principles and practice of evaluating, gathering and writing the fundamental news story and news feature; preparation of copy for publication, interviewing, and laboratory experience. Spring, annually.

COMM 251 INTRODUCTION TO IMAGES 3 s.h.

Develops an awareness of the perceptual cues in the environment with the goal of enabling the student to use this awareness in the design of graphic films, electronic and sound images. An introduction to the production process. Camera required. See specifications under "College of Communication" section. Each semester.

COMM 271. REPRODUCTION GRAPHICS 3 s.h.

Develops basic skills in graphic arts processes, layout design, and preparation of copy for reproduction with emphasis on offset lithography. \$50 equipment deposit required. Camera required. See specifications under "College of Communication" section. Prerequisites: COMM 152, 171, and 251. Each semester.

COMM 315	PHOTOGRAPHY	3 s.h.
Provides basic principles of photography and intermediate principles of photojournalism. Study of camera and darkroom techniques; the production of photographs for news, advertising, scientific, and instructional use. Camera required. See specifications under "College of Communication" section. On demand.		
COMM 351	PRODUCTION APPLICATION	5 s.h.
Provides the student with training in television production and experience in the application of communication theory and production techniques. Integrates skills in writing, photography, audio and graphics in a total production context. Camera required. See specifications under "College of Communication" section. Prerequisite: COMM 271. Each semester.		
COMM 352	COMMUNICATION RESEARCH METHODS	3 s.h.
Develops entry level skills in use of the research process to the study of human behavior. Emphasizes the role of research in the various communication professions. Requires the possession of a hand calculator with square root and preferably with Algebraic Operating System (AOS) logic. Prerequisite: COMM 152. Each semester.		
COMM 360	PUBLICATIONS EDITING	3 s.h.
This course provides fundamental instruction in editing skills, copy editing, headline writing, typography, photographs, copy control and layout. It also examines the role and responsibilities of the editor. Prerequisite: COMM 271. On demand.		
COMM 371	ADVANCED MEDIA WRITING	3 s.h.
Extensive work in research, writing, and marketing of written products for magazines, newspapers and broadcasting. The coursework also requires the selection and acquisition of appropriate photographs and graphics to complement the articles. Prerequisites: COMM 171 and 251. Fall, annually.		
COMM 400	MEDIA IN ADVERTISING	3 s.h.
Introduces the student to media strategies, creative development, and budgeting of advertising plans for national and major-market media. The course includes a review of basic concepts in advertising. Fall, annually.		
COMM 402	INTERNSHIP	5 s.h.
Provides experience during which the student applies theory and techniques to communication tasks of a cooperating business, industry, agency or institution. The student will be required to obtain approval of a detailed proposal before registering for the course. Prerequisites: COMM 351, 352, senior standing, minimum 2.5 QPA, and endorsement of two communication faculty members. Individual exceptions may be granted upon application to the faculty through the advisor. Arranged.		
COMM 405	PRESENTATION GRAPHICS	3 s.h.
This course covers the design and production of graphic materials for the presentation of information in training sessions, sales and stockholder meetings, and other small and large group situations. Each semester.		

COMM 411	FOUNDATIONS OF BROADCASTING	3 s.h.
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An overview of the broadcasting industry, including history, technical aspects, station and network organization, sales, ratings, programming and social influences. A foundation course for radio-TV career preparation, related fields of communication, and the development of knowledgeable consumers of broadcast media. On demand.

COMM 412:	FOUNDATIONS OF CABLE TELEVISION	3 s.h.
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An overview of the cable television industry, including history, technical aspects, industry and system structure and organization, economics, law and programming, with emphasis on cable management/operations. Spring, odd-numbered years.

COMM 415:	LOCAL ADVERTISING	3 s.h.
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A professional course in planning, scheduling, producing, and buying and selling advertising at the local level, with specific attention to the small business client. Spring, annually.

COMM 431:	PUBLIC RELATIONS PRINCIPLES AND PRACTICE	3 s.h.
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This course is designed to provide fundamental instruction in public relations practices, including program planning and evaluation, working with the media, writing for public relations and coordinating special events and functions. The structure and process of public relations in business, institutions and American society will be explored through readings and discussion. On demand.

COMM 451:	COMMUNICATION EVALUATION	3 s.h.
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Develops skills in the selection, development, and use of specific evaluation tools for various communication professions. Both qualitative and quantitative procedures are applied. Emphasis is placed on formative evaluation and the role of objectives. Prerequisite: COMM 352. Each semester

COMM 452:	COMMUNICATION LAW	3 s.h.
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Introduces the student to various laws such as those of libel, privacy, copyright, access, and FTC and FCC rules and regulations governing the fields of communication. Ethical considerations in communication fields and potential restrictions, such as union and company policies, on communication are also discussed. Each semester.

COMM 491:	INDEPENDENT STUDY	1-3 s.h.
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Allows the imaginative student to structure an independent research project in the area of communication with a minimum of faculty supervision. A proposal specifying objectives, methods, and evaluation techniques must be submitted to and approved by the student's advisor and dean.

COMM 499:	SPECIAL TOPICS IN COMMUNICATION	1-3 s.h.
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Focuses on the single, broad contemporary topic of current interest in communication and related fields. Course content varies from semester to semester. Topics to be discussed will be announced in advance. May be taken three times for credit. On demand

COMPUTER INFORMATION SCIENCE

CIS 110	INTRODUCTION TO COMPUTER INFORMATION SYSTEMS	3 s.h.
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This is an introductory survey of the needs for and roles of computer information systems in contemporary society. It is intended as a first course for the non-computer major to satisfy the need of students from every discipline to be "computer literate," as well as providing the necessary basis for further computer related studies. Emphasis is on computer requirements in organizations, history, hardware concepts, programming, application software, systems development, and computer operations. Introductory level programming will utilize the BASIC language and time sharing facilities of the universities VAX computer system. This should not be taken by any Computer Science or CAIS major, and will not count toward graduation for any student who has also taken CIS 120 or CIS 163. Each semester.

CIS 120:	PRINCIPLES OF APPLIED INFORMATION SYSTEMS	3 s.h.
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Introduction to the tools, techniques, and processes utilized by computer professionals in developing and utilizing applied computer information systems. Heavy emphasis is placed on the logical and communication skills utilized in the field and on the development of elementary programming proficiency. This course is required of all C.A.I.S. majors but not of C.S. majors. May not be taken by C.S. majors or by any student who has taken CIS 110. Prerequisites: Permission of Department or both ENG 111 and MATH 131 with grades of "C" or better. Each semester.

CIS 151:	FORTRAN I	3 s.h.
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Introductory course in programming using FORTRAN. The FORTRAN language exemplifies the use of a high level language processor which can solve problems requiring scientific methods as well as commercial applications. All material is presented in an orderly fashion designed to aid the student in understanding the various algorithms underlying solutions to a variety of problems. Each semester.

CIS 152:	FORTAN II	3 s.h.
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An advanced course in FORTRAN programming designed to acquaint the student with the many facets and extensions of the FORTRAN language. Many advanced features of the language which are not covered in the introductory course but will be explored, particularly Disk and Tape operations, built in functions and debugging techniques. Prerequisite: CIS 151. An elective course offered as student demand warrants

CIS 163:	INTRODUCTION TO PROGRAMMING AND ALGORITHMS I	3 s.h
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Required of all C.S. majors (but not of C.A.I.S. majors). An introduction to the concepts of algorithms and problem solving. A computer programming language is presented as a tool in examining these concepts. Prerequisite: Permission of Department or MATH 270 with a grade of "C" or better. Each semester.

CIS 164	INTRODUCTION TO PROGRAMMING AND ALGORITHMS II	3 s.h.
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Required of all C.S. majors (but not C.A.I.S. majors). An examination of complex problems solving techniques, top down design, and program debugging and testing. Prerequisite: CIS 163. Each semester.

CIS 211	RPG II REPORT PROGRAM GENERATOR	3 s.h.
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This computer course introduces the theory and application of the report program generator language utilized by commercial users with small configurations of computer equipment. Prerequisite: Sophomore standing or consent of instructor. Annually.

CIS 212	MICRO MINI COMPUTER SYSTEMS	3 s.h.
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This course studies three aspects of small computer systems: micro mini computer architecture, software systems available including an in-depth study of at least two popular software packages, and programming the small computer system in BASIC and/or PASCAL with hands-on experience using a widely available system. Prerequisite: CIS 110 or CIS 120. Each semester.

CIS ED 217	APPLICATIONS OF MICROCOMPUTERS	3 s.h.
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An introduction to the basic concepts of microcomputers and software applications. Topics include microcomputer hardware, commonly available software packages, graphics and programming. Not open to students who have completed CIS 212. Each semester.

CIS 223	COMPUTER PROGRAMMING COBOL	3 s.h.
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This is designed to be the first programming course for the C.A.I.S. major (but not for the C.S. major). Emphasis is on structured programming concepts and the COBOL language. Programs written in the course emphasize commercial, industrial, and governmental applications. Prerequisite: CIS 120. Each semester.

CIS 224	DATA STRUCTURE AND FILE UTILIZATION COBOL	3 s.h.
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Primary consideration is given to the concepts of file structure, file processing, and COBOL programming in relationship to organizational processes and needs. COBOL is used to implement, test, and explore systems concepts, including simulations and data base design. Prerequisite: CIS 223. Each semester.

CIS 226	COMPUTER SYSTEMS DEVELOPMENT WITH HIGH LEVEL TOOLS	3 s.h.
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This is a study of the process of developing a computer-based solution to an information management problem. The student will study the methods of system analysis and design with emphasis on practical solutions to real problems. Course content will be directed toward existing, available systems development tools for both large computers and microcomputers. "Fourth-generation" tools will be used to develop an underlying database and generate programs to implement a business application. Offered in the spring semester at Venango Campus only. Prerequisite: CIS 110 and CIS 217 or permission of the instructor.

CIS 230	PRACTICUM IN COMPUTER INFORMATION SCIENCE	1-2 s.h.
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The course is designed to provide undergraduates with an introduction to the role of computer specialists in the everyday operation of a computer machine room and user area. The course provides real experience in such routine exercises as: machine event logging, backup restoration of on-line information, preparation, organization, and revision of system documentation, allocation of user accounts, monitoring of system resources, and fielding of user problems and complaints. A maximum of 6 credits of the practicum may be applied

toward graduation. Students enrolled in the course are required to gain actual experience in everyday machine operation by acting as machine room supervisors and interacting with computer users. Prerequisites: CIS 164 or 224. Each semester.

CIS 240 DISCRETE MATHEMATICAL STRUCTURES 3 s.h.

An introduction to the mathematical expertise necessary to facilitate the efficient computer manipulation of data. Topics include permutations and combinations, boolean logic, lattices, graphs, etc. Each semester.

CIS 253 COMPUTER ORGANIZATION AND ASSEMBLY LANGUAGE 3 s.h.

This course consists of two major parts. The first part is an introduction to assembly language programming and the second part concentrates on an introduction to computer organization and the structuring of major hardware components. It develops a basic understanding of the mechanics of information transfer and control and the fundamentals of logic design. Prerequisite: CIS 164 or 224. Annually.

CIS 254 INFORMATION STRUCTURE 3 s.h.

An introduction to the representation of information in both primary and secondary storage and a foundation for further study in data structures. Topics include sequential and random access, searching, sorting, linked lists, hashing, and trees. The major concepts of the course are reinforced through the use of programming assignments. Prerequisite: CIS 164 or 224. Annually.

CIS 255 SURVEY OF LANGUAGES 3 s.h.

A survey of several popular programming languages with emphasis on the types of problems for which each language was designed. Students are exposed to both the syntax and semantics of the languages and are expected to complete several small programming projects in each of them. Prerequisite: CIS 164 or 224. Annually.

CIS 301 COMPUTER SYSTEMS ANALYSIS 3 s.h.

This computer course studies informational needs and patterns of information flow within a large organization. The primary emphasis is on the analysis and design of computer software systems. Prerequisites: CIS 223, and at least one of the following: CIS 211 or 224. Annually.

CIS 302 EDP AUDITING AND SECURITY 3 s.h.

EDP Auditing and Security is concerned with the EDP audit process, provision and evaluation of controls in all aspects of EDP system operation, and the provision and maintenance of computer security. Internal control is stressed as specific controls and security are studied. Prerequisites: ACTG 252, CIS 224. Annually.

CIS 350 MACHINE ARCHITECTURE AND SYSTEMS SOFTWARE 3 s.h.

This course investigates the basic concepts of machine architecture together with their realization and software implications in various categories of computer systems. Prerequisite: CIS 253. Annually.

CIS 355: OPERATING SYSTEMS I 3 s.h.

This course is a study of computer operating systems. Topics covered are the functions of operating systems, the design of operating systems at the register transfer and programming levels, the important relationships between operating systems and computer hardware. Prerequisites: CIS 350 and 254. Annually.

CIS 356: DATA STRUCTURES AND ALGORITHM ANALYSIS 3 s.h.

This course develops skills in the application of algorithmic methods to the solution of decision problems in the use of data structures. Prerequisites: CIS 253 and 254. Annually.

CIS 357: STRUCTURE OF PROGRAMMING LANGUAGES 3 s.h.

This course investigates the programming features of several common languages from the point of view of implementation of these languages. The student is exposed to the language characteristics along with the details (difficulties) in the implementation of them. The desired effect is to train the student to choose and use languages in a competent manner. Prerequisites: CIS 253, 254, and 255. Annually

CIS 401: SYSTEMS DEVELOPMENT PROJECT 3 s.h.

A student in this course will develop a computer-based solution to a real problem obtained from the university or the community. Working as a member of a group/ team, the student will evaluate an existing system, identify alternative solutions, select a solution, develop a project plan, design, implement, test and document the system. Current technology will be used whenever possible, including microcomputers, word processing, and a relational database. Prerequisite: CIS 301.

CIS 402: DATA BASE MANAGEMENT SYSTEMS 3 s.h.

A study of Data Base Management Systems with "hands on" experience. The student will investigate the analysis, design, implementation and maintenance of a modern Data Base Management System. Prerequisites: CIS 223 and 301. Annually.

CIS 403: DATA COMMUNICATIONS 3 s.h.

Data communications cover fundamental communication concepts such as synchronous/asynchronous transmission, modulation and half and full duplex; hardware of data communications, techniques such as multiplexing, multipoint line control and switching; error detection and correction, tariffs and costs; the design of a basic data communications network. Prerequisite: CIS 223. Annually.

CIS 422: INTERNSHIP IN COMPUTERS

The internship provides the student with the opportunity for practical computer experience in commercial, industrial, governmental, or other participating organizations. Prerequisites: CIS 164 or 224. Junior or Senior standing. Each semester.

CIS 460: INTRODUCTION TO THEORY OF COMPUTATION 3 s.h.

An introduction to the theory underlying the design, use and limitations of computers. Includes finite state and infinite machines, computability, formal systems. Prerequisites: CIS 164 or 224, 240. Annually.

This course is devoted to the study of the computer programs that are used to control and monitor the overall functioning of the computer as it serves the application programs. This is an advanced course in operating systems following Operating Systems I. Prerequisites: CIS 355 and MATH 455. An elective offered as student demand warrants.

CIS 462: SIMULATION AND MODELING

3 s.h.

This course covers the advantages and disadvantages of using computer simulation in modeling. Students will learn and practice techniques of computer simulation. Prerequisites: CIS 164 or 224 and either MATH 221 or 455, or consent of instructor.

CIS 469: SEMINAR IN COMPUTER & INFORMATION SCIENCE

1 s.h.

A brief look at diverse subjects in computing and information systems. Each student will research an approved topic and offer a related verbal presentation to the class. Prerequisite: Senior standing. Spring semester.

CIS 499: INDEPENDENT STUDY IN COMPUTERS

This course permits students to explore an area of special interest using computers. The special project must be under the direction of a department faculty member. Prerequisites: CIS 164 or 224, Junior or Senior standing.

EARTH SCIENCE

NOTE: Earth Science courses carry natural science credits only.

ES 111: BASIC EARTH SCIENCE

3 s.h.

A survey of the Earth Sciences including Earth-space relations. Earth motions, development of land forms, weather and climate, soils and related vegetation, water as a resource of the land, oceans. Emphasis is on the lithosphere (mountain building and erosion) and the atmosphere. Called Basic Geography in older catalogs. Each semester.

ES 150: PHYSICAL GEOLOGY

3 s.h.

A study of the earth, including minerals and rocks, and the processes, both constructional and destructional, which have shaped it since it was formed. Constructional processes include volcanism, mountain building, and sedimentation. Destructional processes include the erosional activity of streams, glaciers, ground water, waves, and wind. In connection with these topics, an effort is made to acquaint the student with the methods and work of geologists and with some of the research at the frontiers of geology. The course includes a field trip into local areas. No prerequisites. Each semester.

ES 200: SOLAR SYSTEM ASTRONOMY

3 s.h.

The course topics include the motions of Earth, moon, and the planets and their effects on the appearance of the sky; the nature of the sun and the planets; the instruments of the astronomer and the role that the history of astronomy played in the development of our understanding of the sky. The course also includes constellation identification through the use of the planetarium. Each semester.

ES 201: STELLAR ASTRONOMY 3 s.h.

The objectives of this course are to study man's understanding of the nature, formation and evolution of those celestial objects that lie beyond the solar system. Topics included are stellar properties and spectra, stellar evolution, special stars and star systems, the milky way and other galaxies, cosmology and cosmogony. The planetarium is used for constellation study and the development of co-ordinate systems. Prerequisite: ES 200. Spring, annually

ES 250: HISTORICAL GEOLOGY 3 s.h.

The course deals with the interpretation of the record of the rocks and the geologic history of the earth with emphasis on North America. The physical history of the continent and the development of life, especially backboneed forms, are discussed. Regional geologic history is illustrated by selected areas, notably Appalachia. Prerequisite: ES 150. Offered annually.

ES 255: LAND FORMS 3 s.h.

A study of the physical forces that sculpture and modify the landforms of the earth, including chiefly weathering, streams, glaciation, and shore processes. Some preliminary work on topographic and geologic maps and rocks is included. Called Geomorphology in older catalogs. Prerequisite: ES 150. Offered annually

ES 260: ENVIRONMENTAL GEOLOGY 3 s.h.

A study of the uses of geology in the solution of man's problems with his physical environment. Topics include hazardous geologic environments, mineral and energy resources, water supply, waste disposal, and the uses of geology in urban and regional planning. Many examples are drawn from western Pennsylvania. Prerequisite: ES 150 or ES 111. Every third semester

ES 270: OCEANOGRAPHY 3 s.h.

A study of the physical properties, marine biology, chemistry, and geology of the oceans and to a minor extent, the role of the sea in the history, culture, and technical developments of man. Once annually

ES 280: METEOROLOGY 3 s.h.

A systematic study of the atmosphere, analyzing the laws and underlying principles of atmospheric change. Students have the opportunity to become familiar with the common weather instruments, to observe and record weather data, to read and interpret weather maps, and to consider the problems of aviation growing out of atmospheric conditions. Offered annually.

ES 300: SPECIAL TOPICS

Topics of special interest in various areas of earth science. The format used will be selected and designed by the professor as the most suitable to the study. Enrollment by consent of the instructor. Offered occasionally

ES 360: MINERALOGY (MINERALS) 3 s.h.

The identification, uses, physical and chemical properties, occurrence, origin, and crystallography of the common minerals. Prerequisites: at least high school chemistry. Every other year.

ES 350: STRUCTURAL GEOLOGY 3 s.h

A study of the geometry, origin, and recognition of the main structural features of the rocks of the earth's crust, including folds, faults, joints, unconformities, larger igneous bodies, cleavage, lineation, etc. Attention is given to interpreting structure from geologic maps, and an introduction to structural petrology and geophysical methods used in structural geology is included. Prerequisite: ES 150. Every other year.

ES 355: INVERTEBRATE PALEONTOLOGY 3 s.h.

A study of the outstanding invertebrate animals preserved in the fossil record. Also treated in the nature of the fossil record itself, evolution as shown by fossils, and classification problems in paleontology. Prerequisite: ES 250. Every third semester.

ES 370: PETROLOGY (ROCKS) 3 s.h.

The identification, occurrence and origin, classification, physical and chemical properties, and uses of the common rocks. Includes a brief study of the important rock forming materials. Called Petrology in older catalogs. Prerequisite: ES 150. Every other year.

ES 375: SEDIMENTATION AND STRATIGRAPHY 3 s.h.

A study of several aspects of the stratigraphic column, stratigraphic procedures and maps, and the properties, classifications, description, origin, correlation, facies, and environments of sedimentary rocks. Prerequisites: ES 150 and 250. Every third semester.

ES 380: ADVANCED METEOROLOGY 3 s.h.

Students study and interpret weather data which are received directly from NOAA by way of a weather facsimile recorder. Also, local meteorological data are used to study and compare atmospheric characteristics and trends. Prerequisite: ES 280. Every other year.

ES 385 or
GEOG 385: CLIMATOLOGY 3 s.h.

A systematic study of three major components of climatology. Physical aspects of the atmosphere are analyzed as a series of long-term weather phenomena. Regional characteristics of climate are studied on the basis of world-wide patterns. Applied aspects of climate demonstrate the interrelationship and importance of both physical and regional climatology to man. Acceptable for social science or natural science credit. Prerequisite: ES 111 or 280. Every other year.

ECONOMICS

ECON 175: ECONOMICS OF FREE ENTERPRISE AND PUBLIC POLICY 3 s.h.

A basic introduction into the history of economics as a social science, the theory and application of microeconomics and macroeconomics, international economics, and economic alternatives in current social problems. This is a freshman level course and can be used only as general education elective in either the associate degree program or the baccalaureate degree programs. Majors in the school of business administration are excluded from the course. Each semester.

ECON 211: PRINCIPLES OF MACROECONOMICS 3 s.h.

Introduction to macroeconomics, national income analysis, money and banking, monetary and fiscal policies, inflation, and unemployment. Note: ECON 211 and 212 may be taken in either sequence. Each semester.

ECON 212: PRINCIPLES OF MICROECONOMICS 3 s.h.

Introduction to microeconomics, consumer behavior and demand, organization of production, market structures and the pricing of inputs and outputs and international economics. Note: ECON 211 and 212 may be taken in either sequence. Each semester.

ECON 221: ECONOMICS AND BUSINESS STATISTICS I 3 s.h.

Topics covered are descriptive statistics, probability, probability distributions, mathematical expectation, sampling distributions, and confidence intervals. Application of these statistical techniques in the areas of business and economics will be emphasized. Prerequisite: College Algebra or equivalent and sophomore standing. Each semester. (This course cannot be used to meet general education requirements.)

ECON 222: ECONOMIC AND BUSINESS STATISTICS II 3 s.h.

Topics covered are hypothesis testing, the analysis of variance, regression and correlation analysis, non-parametric statistics, and time series and index numbers analysis. Applications of these techniques in the area of business and economics are emphasized. Students are introduced to the use of a prewritten computer statistical estimation program. Prerequisite: ECON 221. Each semester. (This course cannot be used to meet general education requirements.)

ECON 310: INTERMEDIATE MICROECONOMIC THEORY 3 s.h.

The behavior of consumers, producers, and the economic theory of practice and output determination in commodity and resource markets. Prerequisites: ECON 212. Each semester.

ECON 311: INTERMEDIATE MACROECONOMIC THEORY 3 s.h.

National income accounting and analysis, theories of consumption and investment expenditures, the role of money in a dynamic economy, economic growth, and public policy. Prerequisite: ECON 211. Fall, annually.

ECON 312	COMPARATIVE ECONOMIC SYSTEMS	3 s h
<p>Analysis of alternative patterns of economic control, planning, and market structure. Experiences under capitalism, socialism and mixed economics are compared and evaluated. Prerequisite: ECON 211 and 212. Spring, annually.</p>		
ECON 314	URBAN AND REGIONAL ECONOMICS	3 s h.
<p>Introductory subnational economics. Includes elementary trade theory, location theory, systems of cities, land use changes, and the employment and income generating activities of cities. The economics of housing, transportation, poverty, discrimination and public sector activity are emphasized. Prerequisite: ECON 211 and ECON 212. Spring, biennially.</p>		
ECON 340	INDUSTRIAL ORGANIZATION AND PUBLIC POLICY	3 s.h.
<p>A theoretical and empirical analysis of the effects on market structure, business behavior and government policy on economic performance and consumer welfare. Topics include welfare economics, market structure, pricing, technological change, regulation and antitrust policy. Prerequisite: ECON 211 and 212. Fall, annually.</p>		
ECON 341	THE ECONOMICS OF REGULATED INDUSTRIES	3 s.h.
<p>A theoretical and empirical study of regulated industries with emphasis on transportation, energy and communications. Topics include regulatory theory, deregulation and public utilities. Prerequisites: ECON 211 and 212. Spring, annually.</p>		
ECON 351	LABOR ECONOMICS	3 s h.
<p>A study of union history, structure, and functions in the United States economy. Collective bargaining, labor laws, and government policies toward labor are included. Management reaction to organized labor unions and related labor problems are stressed. Prerequisites: ECON 211 and 212. Fall, annually.</p>		
ECON 361	INTERNATIONAL ECONOMIC RELATIONS	3 s.h.
<p>Theory and practice of international trade. Balance of payments, foreign exchange, national commercial policies, international investment, and foreign aid are considered. Prerequisites: ECON 211 and 212. Fall, annually.</p>		
ECON 370	MONEY AND BANKING	3 s h
<p>Nature and origins of money; the commercial banking system and money creation; central banking and the Federal Reserve System; monetary policy and domestic and international economic stability. Prerequisites: ECON 211 and 212. Spring, annually.</p>		

ECON 371	PUBLIC FINANCE	3 s.h.
Public sector activity and its impact upon resource allocation, and income distribution. Topics include the theory of public expenditures, public choice, cost-benefit analysis and fiscal federalism. The structure, incidence and incentive efforts of the personal income tax, corporate income tax, and various consumption and wealth taxes are investigated. Prerequisites: ECON 211 and 212. Fall, annually.		
ECON 410	MANAGERIAL ECONOMICS	3 s.h.
Use of economic analysis in the formulation of business policies. Decision theory and criteria for decision-making by the firm: output and "scale" decisions; linear programming; profits; production functions and cost functions; competitive equilibrium (industry and firm); demand theory; pricing policies; capital budgeting and investment; uncertainty; inventory management. Prerequisites: ECON 222, 310 and ACTG 152. On demand.		
ECON 423	STATISTICAL TOOLS FOR QUANTITATIVE ANALYSIS	3 s.h.
Application of the statistical methods of probability, sampling, estimation, analysis of variance, regression, and correlation in the areas of economics and business. Prerequisite: ECON 222. Spring, biennially.		
ECON 470	BUSINESS CYCLES AND FORECASTING	3 s.h.
Theories of business fluctuations; applications of modern income theory to business cycles; examination of business cycle indicators and forecasting techniques. Prerequisites: ECON 211 and 222, or consent of the instructor. Spring, annually.		
ECON 490	HISTORY OF ECONOMIC THOUGHT	3 s.h.
Development of economic ideas from ancient times to the present. Emphasis upon the period from Adam Smith onward. Considers the economic and political environment in which ideas emerged as well as the leading economists advancing or defending the ideas. Prerequisites: ECON 211 and 212 and senior standing. Spring, annually.		
ECON 491	INDEPENDENT STUDIES IN ECONOMICS	1-3 s.h.
Opportunity to explore in depth a problem or areas of economics, according to the student's interest, under the direction of a faculty member of the Department. Prerequisite: 2.75 grade point average and consent of both instructor and department chair. Maximum credit granted in ECON 491 is 6 credits.		
ECON 492	SPECIAL TOPICS IN ECONOMICS	3 s.h.
An opportunity for students to investigate specific topics or current issues. Prerequisites depend upon the subject to be covered.		

EDUCATION

ED 110: INTRODUCTION TO EDUCATION 3 s.h.

This introductory course will familiarize students with the public school system. Topics covered include: philosophical, sociological and historical backgrounds of education, organization and governance of schools, the role of the teacher and choosing teaching as a career. Planned visits to elementary and secondary schools are required. Each semester.

ED/CIS 217: APPLICATIONS OF MICROCOMPUTERS 3 s.h.

An introduction to the basic concepts of microcomputers and software applications. Topics include microcomputer hardware, commonly available software packages, graphics and programming. Not open to students who have completed CIS 212. Each semester.

ED 221: DEVELOPMENTAL READING 3 s.h.

A broadly based course which emphasizes improvement in rate, comprehension, reading taste, and independence in reading. Students are introduced to wide and varied sources of reading and numerous means of improvement in reading skills. Instruction in theory and an introduction to the possibilities of a supplementary mechanical program for reading improvement are included. Not recommended for students who have taken GS 100: College Reading/Study Skills. Fall semester.

ED 224: EDUCATIONAL EVALUATION 3 s.h.

This course addresses the construction, selection, administration, interpretation, and utilization of evaluation instruments and techniques. Students will be required to analyze standardized tests applicable to their certification area, as well as construct and utilize informal instruments. Participation experiences in the schools are required. Each semester.

ED 225: MULTICULTURAL EDUCATION 1 s.h.

The purpose of this course is to assist the student in developing an awareness and understanding of our multicultural-pluralistic society and in acquiring interpersonal and pedagogical skills needed to provide optimum learning opportunities for students. Skills and concepts developed in this course will be applied in selected methods courses. Each semester.

ED 226: BASIC TEACHING SKILLS 2 s.h.

This course will provide the prospective teacher, through a clinical approach to teaching with the basic skills of planning, organizing, implementing and evaluating the teaching-learning process. The course will emphasize the body of research findings that focus specifically on the pedagogical skills necessary for quality teaching utilization of micro-teaching approaches, and simulations will be an integral component of this course. Participation experiences in the schools are required. Each semester.

This course prepares pre-service professional educators to organize and manage instructional environments through a variety of instructional formats, classroom organizational methods, as well as teacher leadership roles. The course will provide the competencies necessary to plan positive instructional activities, organize classroom space and time, direct the acquisition of knowledge and appropriate social behavior, and apply a range of classroom control techniques. Participation experiences in the schools are required. Each semester.

ED 311 METHODS OF TEACHING AND EVALUATING MODERN
LANGUAGES (French, German, Spanish, Russian, as applicable
to major)

Introduction to the psychological and linguistic foundations of modern language acquisition. Techniques of teaching modern languages and cultures. Evaluative techniques for testing modern language acquisition. Long-range and short-range planning in Modern Language teaching. Prerequisite: ED 226 Basic Teaching Skills. Scheduled as needed.

ED 322 EDUCATIONAL PSYCHOLOGY 3 s.h.

Examines the major theories, research procedures, and empirical data germane to educational psychology and their application to educational strategies. Each semester.

ED 324 METHODS OF TEACHING AND EVALUATING
MATHEMATICS 3 s.h.

Place and function of mathematics in secondary education, content improvement and evaluation of instruction in mathematics, acquaintance with current literature and research, observation in secondary schools. Observations and teaching experiences in area schools are included. Prerequisites: 9 hours of college mathematics. Fall, annually.

ED 326 METHODS OF TEACHING AND EVALUATING
SOCIAL STUDIES 3 s.h.

This course is geared to coordinate knowledge of the social sciences with various strategies of teaching in a social studies program in the secondary schools. Emphasis is placed on the inquiry method. Students are expected to develop competencies in formulating objectives, in questioning, in planning lessons, in evaluation of materials, programs, and student performance and in designing learning activity packets. Students are afforded the opportunity to observe and to engage in clinical teaching experiences. Open to juniors and seniors. Fall.

ED 328 METHODS OF TEACHING AND EVALUATING
COMMUNICATION ARTS 3 s.h.

The course is designed to prepare the aspiring secondary teacher in the methods of teaching such language based subjects as speech, composition, literature, grammar, and reading, and in such language-related, communication oriented activities as dramatics, journalism, yearbook production, and media use. Observations and teaching experiences in area schools are included. Fall annually.

A course designed to prepare biology teachers for the secondary schools. Emphasis is on formulating objectives, selecting and organizing content, developing skill in using a variety of teaching strategies, and evaluating pupil progress. The investigatory approach to teaching biology is stressed in laboratory, field, and simulated teaching experiences. Observations and teaching experiences in area schools are included. Fall, annually.

ED 333: TEACHING READING IN THE
SECONDARY CONTENT AREAS

3 s.h.

An examination of the techniques for helping secondary students develop the reading skills needed to comprehend content-area textbooks. Students will examine those skills in their certification area. Skills and competencies developed in ED 225: Multicultural Education will be applied. A required course for secondary education majors. Participation experiences in the schools are required. Fall, annually.

ED 334 METHODS OF TEACHING THE PHYSICAL SCIENCES

3 s.h.

Modern concepts of chemistry, physics, and general science teaching and evaluating with emphasis on a laboratory oriented approach. The philosophy, laboratory techniques, curriculum testing, and extra-curricular aspects of secondary school chemistry, physics, and general science teaching will be presented. Prerequisite: For secondary chemistry majors -- 16 s.h. in chemistry; for physics majors -- 10 s.h. in physics. Observations and teaching experiences in area schools are included. Fall, annually.

ED 335: METHODS OF TEACHING AND EVALUATING
PHYSICS AND MATHEMATICS

3 s.h.

This course is designed for those students desiring to become certified in both Physics and Mathematics. It contains the modern methods of teaching and evaluating in both these disciplines, as described in the courses listed as Education 324 and 334, in that the student will divide his time between these two methods courses according to schedule presented in consultation with the instructors in these courses. Observations and teaching experiences in area schools are included. Fall, annually.

ED 401: METHODS OF ENVIRONMENTAL (OUTDOOR
AND CONSERVATION) EDUCATION

3 s.h.

Philosophy, history, development, theory, and methods of outdoor, conservation, and environmental education. Skills in developing material and activities. Relation of the out-of-doors to school curricula. Prerequisites: Education major, upper division standing. Each spring, and summer on demand.

ED 403: FIELD EXPERIENCE IN MODERN CONCEPTS
OF OUTDOOR EDUCATION

3 s.h.

(McKeever Center in Sandy Lake, Pa. will be utilized for presentation of this course.)

This course focuses on the application of current educational concepts, i.e., learning stations, team teaching, creative writing, dramatic role playing, and other creative activities to outdoor education. The relationship of all curriculum areas to outdoor education is examined and practiced. The course may be taken for graduate credit with the approval of the Education Department Chairman and the instructor. Offered for two weeks at a time between the end of the spring semester and the beginning of regular summer school only.

ED 423, 424:	LIBRARY PRACTICE AND SECONDARY STUDENT TEACHING	(6.6) - 12 s.h.
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Two major assignments are required: The equivalent of one-half time in public school library practice and the equivalent of one-half time in classroom academic teaching, both under the supervision of approved cooperating librarians and teachers in public school student teaching centers affiliated with the University. Fall semester, annually.

ED 424:	SECONDARY STUDENT TEACHING	12 s.h.
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Observation and participation in teaching and in activities related to the performance of a teacher's work in the area of the student's specialization. Assignments for secondary student teaching are completed at off-campus public school teaching centers associated with the University. Each semester.

ED 427:	EXCEPTIONALITIES IN THE REGULAR CLASSROOM: IDENTIFICATION AND SERVICES	3 s.h.
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This course is designed to prepare students to deal with the nature and needs of the exceptional person in a regular classroom. Contemporary methods of identification, services for the exceptional individual and legal aspects of the least restrictive environment are examined. Each semester.

ED 432:	STUDENT TEACHING IN MUSIC	10 s.h.
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Observing and teaching, under supervision, in vocal and instrumental music in the elementary, junior and senior high school. Each semester.

ED 434/534:	WORKSHOP IN EDUCATION	3 s.h.
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The workshop provides opportunities for in-service teachers to encounter new ideas, knowledge, and methods in meeting problems in today's schools. Prerequisite: teaching experience in the elementary or secondary schools.

ED 450:	INDEPENDENT STUDY	1-3 s.h.
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This course is designed to provide students with opportunity to explore an area of special need or interest in Education in depth under the supervision of a member of the department. Students must develop a proposed study plan and secure the approval of the proposed director and department chair prior to registration. Prerequisite: Junior or Senior standing.

ED 452/552:	READING PROBLEMS WORKSHOP	3 s.h.
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Within a format that includes the identification of problems and their possible causes, the selection of solutions, and procedures for the evaluation of results, participants will examine reading issues relevant to their current or anticipated professional roles. Emphasis will be on problems which affect groups of students: rather than individuals. Consultation with school districts represented will be sought. Graduate students will be required to complete one additional assignment. Prerequisite: One course in reading or one year of teaching experience. Every other year

ED 499/599:	SPECIAL TOPICS IN EDUCATION	1-3 s.h.
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Examines current topics and issues in education. Topics, which will be announced in advance, will focus on the needs and interests of in-service educators.

ELEMENTARY EDUCATION

EARLY CHILDHOOD EDUCATION

ECH 121 CHILD DEVELOPMENT 3 s.h.

Acquisition of understanding and appreciation of the cognitive, psychosocial, and physical dimensions of child development. Emphasis on individual differences in personality, growth, abilities and interest. Stress on holistic and systematic development of the young human organism. Lectures, films, discussions, and first hand involvement with young children are included. Each semester

ECH 231 CREATIVE ACTIVITIES -- ART AND MUSIC 3 s.h.

Exploration of the nature and value of creativeness together with classroom opportunities for its development. Simulated teaching experiences that employ creative teaching in the areas of art, music and aesthetics. Each semester.

ECH 235 CLASSROOM PARTICIPATION AND ASSESSMENT 3 s.h.

Students are involved in classroom participation two hours weekly for eight weeks at the kindergarten/preschool level and for eight weeks in a primary classroom (1-3). Lectures focus on early childhood education as a career, relevance of course from other disciplines, and application of theories and concepts of child development.

ECH 323 EARLY CHILDHOOD COMMUNICATION PROCESSES 3 s.h.

The course focuses on the oral language experiences of the child from birth through age eight. The early graphic experiences of children in kindergarten through grade three are also examined. Commercially produced and teacher made oral language activities as well as graphic learning activities in encoding and decoding are demonstrated and evaluated. Prerequisites: ENG 252 and ED 322 or permission of instructor.

ECH 324 MATHEMATICS LEARNING EXPERIENCES
FOR EARLY CHILDHOOD 3 s.h.

This course examines activities and experiences designed and recommended by the National Council of Teachers of Mathematics. Pre-number experiences for young children stress the development of concepts through manipulation, observation, and oral language. Early number experiences for kindergarten and the primary grades are examined.

ECH 333 DEVELOPMENTAL PROGRAMMING FOR INFANTS
AND TODDLERS 3 s.h.

This course examines the content of child development from birth through age three. Focus is placed on the normal processes of language, cognitive, social/affective, motor development, and on strategies for stimulating development in these areas. Instructional methods include lectures, films, examination of model programs, case studies, simulation exercises, group and individual projects. Prerequisite: ECH 321 Fall, annually.

ECH 334: EARLY CHILDHOOD SUPERVISION 3 s.h.

The course comprehensively reviews the emergence and evolution of ideas, philosophies, and theories affecting only childhood education in order to highlight their historical continuity with current issues and trends. Management of early childhood programs is examined in terms of time and space utilization, instructional strategies, management of student behavior, and parent-teacher relationships. Prerequisite: Junior standing.

ECH 335: EARLY CHILDHOOD CURRICULUM 3 s.h.

This course examines the function of curriculum in relation to Early Childhood Education and the growth and development of young children. Emphasis will be placed upon the components of curriculum for pre-kindergarten, kindergarten, and the primary grades. Students will experience application in designing curriculum, creating learning centers, and developing units. Prerequisite: ECH 334 or permission of instructor.

ECH 401: CREATIVE RESPONSE TO CONFLICT:
SOCIALIZATION AND DEVELOPMENTAL VIEWPOINTS 3 s.h.

The course is designed to support the participants in understanding theory and in planning techniques of conflict resolution. The course examines and practices cooperation (community building), communication effectiveness, and affirmation (self-concept) as primary components for actual creative responses to personal and group conflicts. Human-capabilities for resolving conflicts at various life stages and in various situations are examined and practiced. Spring, annually.

ECH 420: INCIDENTAL LEARNING 3 s.h.

The course examines incidental learning gained by young children through their interactions with the people and products of their society's major institutions. It asks such questions as these: how do children learn as incidental by-products of these interactions; how can teachers, for example, plan encounters (with people, materials, and environments) so that the encounters contribute to children's learning goals rather than subvert them. Fall, annually.

ECH 424: EARLY CHILDHOOD STUDENT TEACHING 12 s.h.

Participation in two assignments under the direction of cooperating teacher and a college supervisor in an elementary school kindergarten experience or an approved early childhood program and a primary grade experience in a selected elementary school. Students are limited to 15 credits for the semester. Open only to students who are meeting the selection and retention standards of the college. Each semester.

ELEMENTARY EDUCATION

ELED 323: TEACHING OF READING 3 s.h.

An overview of the physiological and psychological aspects of reading and the materials and methods applicable for group and individual instruction in the elementary grades. Each semester, summer.

This course examines topics from both the "traditional" and "modern" elementary school mathematics instructional program. Emphasis is placed upon the scope and development of the subject matter of some of the more recent programs and upon the recent psychological contributions in the area of the conceptual stages, styles and tempos related to teaching elementary school mathematics. The development and implementation of a repertoire of mathematics teaching strategies, instructional media, and diagnostic procedures are stressed throughout the course. Prerequisite: MATH 111. Each semester, summer.

A course coordinating theory and practice in the teaching of elementary school social studies. An historical perspective and examination of current national curriculum programs is developed along with methods and materials applicable to unit type teaching in the social studies. Emphasis is placed on selection and organization and evaluation of materials and experiences that foster the inquiry approach in social studies. Skills and competencies developed in ED 225: Multicultural Education, will be applied. Each semester.

Provides theory and practicum for the remedy of reading and learning problems in the classroom, and the diagnostic tools and methods with which to discover and correct the academic, emotional, and physical factors involved in children with specific and non-specific learning disorders in the field of reading. Prerequisite: ELED 323. Each semester, summer.

Pre-service teachers are required to develop teaching strategies in the communication arts at the elementary school level. In a series of learning modules set in a workshop atmosphere, students prepare techniques and methods of instruction to be integrated into the process of communication for children. Each semester.

The course directs students in the study of the historical growth and development of children's books. Pre-teaching students are required to develop teaching strategies to introduce literature to children, to extend children's language experiences, and to develop children's aesthetic appreciation for literature and art in a program which integrates literary activities across the curriculum. Skills and competencies developed in ED 225: Multicultural Education will be applied. Each semester.

Problems, practices, and regulations attending student teaching professional experiences. Coordination of the student teaching program with the educational objectives of the student teaching centers. Pennsylvania school laws relevant to the work of the beginning elementary school teachers. Practical interpretations of professional ethics and the functions of professional organizations. Limited to student teachers. Each semester.

Observation and participation in teaching and in activities related to the performance of a teacher's work. The semester's program is divided into two student teaching assignments involving experiences at two grade levels. Most assignments for elementary student teaching are completed at public school off-campus student centers associated with the University. Each semester.

ELED 423,

424:

LIBRARY PRACTICE AND ELEMENTARY
STUDENT TEACHING

(6.6) - 12 s.h.

Observation and participation in teaching and in activities related to the performance of a teacher's work. The semester's program is divided into two teaching assignments involving experience at one grade level and an elementary school library. Most assignments for elementary student teaching are completed at public school off-campus student teaching centers associated with the University. Each semester.

ENGLISH

ENG 110: BASIC COMPOSITION SKILLS

3 s.h.

This course is designed to provide instruction in the fundamentals of writing. Students are preassigned to ENG 110. All students who take English 110 must also take ENG 111: English Composition. Each semester

ENG 111: ENGLISH COMPOSITION

3 s.h.

This course emphasizes the development of practical skills in expository writing through writing experiences and the study and analysis of prose models. When necessary, work is done in punctuation, basic grammar, and spelling. This course is a college-wide requirement. However, it may under some circumstances be exempted. Each semester.

Placement in ENG 110 or ENG 111 is based on the student's SAT verbal score. Students with SAT verbal scores of 350 or less must enroll in ENG 110; students with SAT verbal scores of more than 350 should enroll in ENG 111; students with SAT verbal scores of 580 or better are excused from ENG 111.

ENG/SCT 125: MODES OF DISCOURSE

6 s.h.

ENG/SCT 125 is an interdisciplinary course which aims to integrate the students' production of both written and spoken discourse. The course is an alternative method of teaching communication, and draws upon the skills of instructors from English and Speech Communication Theatre. ENG/SCT 125 will be taken by freshman enrolled in the Honors Program, and will replace both ENG 111 and SCT 113. (Not open to students who have taken ENG 111 or SCT 113.)

This introductory course provides a wide selection of literature to acquaint the student with various literary genres. No prerequisite: Recommended for all students. Each semester

This course is designed to explore narrative in literature and film to demonstrate the relationships between the two media, and should enhance the student's ability to interpret and respond to narrative encountered in visual or printed form. No prerequisites. Each semester.

This course is designed to introduce students to formal properties/features that both link drama to and separate it from prose fiction and poetry, and to teach them the art of reading the text of a play so as to perceive the special cues it uses to stimulate imaginative engagement. No prerequisites. Each semester.

This course stresses the writing of papers as a direct result of reading, discussion, and interpretation of a variety of literary types. The short story, the drama, and the poem are examined from several points of view. Research techniques and related skills are utilized as needed. Prerequisite: exemption from or completion of the General Education English requirement. Each semester.

Advanced composition emphasizes writing experience in critical, expository, descriptive, argumentative, and creative work through intensive study of examples, frequent papers, and critical discussion of students' work. Prerequisite: exemption from or completion of the General Education English requirement. Each semester

This course introduces students to the techniques of creative writing in prose and poetry. Major emphasis is on writing practice for students and opportunities for guidance and critical examination of their work. Prerequisite: Completion of General Education English requirement. Fall, annually.

The course provides extensive practice in the writing of short narrative fiction. Student work is subjected to intensive group criticism. Course standards roughly approximate those of commercial fiction editors. Prerequisite: ENG 201 or 202 or permission of instructor based on examination of writing samples. Spring, even-numbered years.

This course is designed to provide the advanced writer intensive practice in the writing of poetry. A significant portfolio of high-quality poetry is expected of each participant by the end of the course. Prerequisite: ENG 201 or 202 or permission of instructor based on examination of writing samples. Spring, odd-numbered years.

ENG 206: BUSINESS WRITING 3 s.h.

This course is designed to meet the specific needs of those students whose skills in written communications are oriented toward the world of business. Prerequisite: satisfactory completion of or exemption from the General Education English requirement. Each semester.

ENG 209: SPECIAL TOPICS IN LITERATURE 3 s.h.

This course will focus on themes and topics of universal and/or current interest as embodied in literature. The special subject of each semester's offerings will be announced in preregistration. It is suitable for both English and non-English majors and may be taken up to three times for credit, provided that different topics are offered. On demand.

ENG 211: VOICES IN CANADIAN POETRY 3 s.h.

This course is designed to introduce the student to some of the major figures who have influenced the development of Canadian poetry since its inception in the nineteenth century. Works will be studied from traditional, modern and contemporary poets such as Carman and Scott, E. J. Pratt, A. J. M. Smith, Layton, Page, Atwood, Nowlan, Livesay, Ondaatje and others. No prerequisites: Fall, odd-numbered years.

ENG 221: ENGLISH LITERATURE: THE BEGINNING TO 1800 3 s.h.

First part of a survey study beginning with the Boewulf poem and extending through the works of such figures as Chaucer, Spenser, Shakespeare, Milton, Pope, and Swift. Fall, annually.

ENG 222: ENGLISH LITERATURE: 1800 TO PRESENT 3 s.h.

Second part of survey study including the works of such major writers as Wordsworth, Coleridge, Byron, Shelley, Keats, Tennyson, Browning, Hardy, Yeats and Eliot. Spring, annually.

ENG 225: THE LITERATURE BEGINNING TO 1860 3 s.h.

This course is a survey of the major periods in and the major writers of American literature from its beginning to 1860. It is designed to enable students to understand the continuities and discontinuities of American literature. Both historical and/or thematic approaches (e.g. the persistence of Puritanism, the quest for authenticity, and hero/ine as innocent, the garden vs. the city) may be utilized by the individual instructor. Fall, annually.

ENG 226: THE LITERATURE 1860 TO THE PRESENT 3 s.h.

This course is a survey of the major periods in and the major writers of American literature from 1860 to the present. It is designed to enable students to understand the continuities and discontinuities of American literature. Both historical and/or thematic approaches (e.g. the alienated self, the impact of industrialization, the hero/ine as American, vision and revision) may be utilized by the individual instructor. Spring, annually.

ENG 230: CONTEMPORARY BLACK AMERICAN LITERATURE 3 s.h.

This course is designed to give insight into the Black experience through the reading and discussion of the works of Black writers who have made significant contributions to literature. Fall, annually.

This course is designed to provide the student with an understanding of what satire is, what it does and how it is related to other literary modes. This will be attempted with the following specific areas in mind: (1) to establish a workable definition of the mode; (2) to consequently enable the student to differentiate between satire and comedy, satire and tragedy, satire and romance, etc.; (3) to provide an understanding of satiric technique and all the terms thus resurrected; (4) to identify the types of satire written; (5) to analyze the role of psychology in the mode; and (6) to study the development of satire. No prerequisite. Fall, annually

ENG 250:

STUDIES IN WESTERN MYTHOLOGY

3 s.h.

This course will concentrate upon Greco-Roman and British (Arthurian) legends in order to demonstrate the systematic nature and recurrent patterns of mythology. It is designed not only to give the student a thorough knowledge of content but to clarify questions of form. Spring, annually.

ENG 252:

INTRODUCTION TO THE ENGLISH LANGUAGE

3 s.h.

This introductory course in language deals generally with the nature of language and specifically with the structures of modern English, its regional and social varieties, and certain highlights of its historical development. Each semester.

ENG 253:

ENGLISH GRAMMAR AND USAGE

3 s.h.

This course is devoted to an intensive study of English grammar and problems in usage. Each semester.

ENG 270:

TRAINING FOR WRITING CENTER TUTORS

1 s.h.

In four meetings of three hours each, tutors are instructed in methods of explaining to students the nature of writing problems and corrective measures to be taken. Tutors are trained in critical analysis and evaluation of student writing, recognizing individual errors in grammar and punctuation, and learning effective methods of explaining grammatical and rhetorical principles. Emphasis is on holistic evaluation. Attention is directed to appropriate attitudes and behaviors in peer-tutor/student relationships. Prerequisites: Tutors are accepted by invitation only on the basis of performance in writing courses: grade point average must equal or exceed 3.0. Fall, annually.

ENG 303:

SIXTEENTH CENTURY PROSE AND POETRY

3 s.h.

Examination of the non-dramatic literature of the sixteenth century focusing upon Sidney, Spenser, and Shakespeare. Fall, odd-numbered years.

ENG 305:

STUDIES IN SEVENTEENTH CENTURY
ENGLISH LITERATURE

3 s.h.

Literary exploration of works by such figures as Bacon, Browne, Jonson, Donne, Herbert, Marvell, and Milton. On demand

ENG 306: SCIENTIFIC AND TECHNICAL WRITING 3 s.h.

This course will provide the student with a broad introduction to practical expository prose in science and technology, through examples of which are the proposal, the technical report, and the manual of instructions. The writing will involve description processes and equipment and require definitions of technical terms. The course is designed to accommodate those students in any of the technical disciplines, including computer science, biology, physics, chemistry, nursing, laboratory technology, pre-engineering, pre-medical, and others. Also, business majors will benefit from the very practical writing the course will stress. Prerequisite: Junior standing. Each semester.

ENG 307: STUDIES IN EIGHTEENTH CENTURY
ENGLISH LITERATURE 3 s.h.

Critical examination of the works of such representative writers as Dryden, Pope, Swift, Boswell, Johnson, and Goldsmith. Spring, even-numbered years.

ENG 311: STUDIES IN NINETEENTH CENTURY
ENGLISH LITERATURE 3 s.h.

Intensive examination of works by such representative writers as Carlyle, Newman, Tennyson, Browning, Arnold, and Morris. Spring, odd-numbered years.

ENG 325: EARLY AMERICAN LITERATURE 3 s.h.

This course surveys 17th and 18th century American literature, emphasizing the impact of Puritanism. Bradstreet, Taylor, Edwards, and Franklin are among the major figures studied. The course also deals with the Revolutionary era and the attempts to mold a distinctively "American" literature. Spring, even-numbered years.

ENG 326: AMERICAN ROMANTICISM 3 s.h.

This course is a study of a selected group of writers to illustrate their contributions to American art and thought and their relationships with the development of Romanticism in the first half of the 19th century. Emphasis is given to Poe, Hawthorne, Melville, Emerson, Thoreau, and Whitman. Fall, annually.

ENG 327: AMERICAN REALISM AND NATURALISM 3 s.h.

This course is a study of a selected group of writers to illustrate the development of realism and naturalism in American literature in the latter half of the 19th century. Emphasis is given to Twain, James, Howells, Crane, Norris, and Dickinson. Spring, annually.

ENG 328: AMERICAN LITERATURE FROM 1900-1945 3 s.h.

This course is designed to survey the major developments in American writing and the contexts in which they originated from the turn of the century until the end of World War II. Poets include Frost, Eliot, W. C. Williams, Pound, Cummings, Millary, Cullen, and others; prose writers include Wolfe, Hemingway, Faulkner, Richard Wright, Steinbeck, Toomer, and others. Dramatists include O'Neill and Tennessee Williams. Fall, annually.

This course reviews the major trends in American literature since 1945. As such, it examines the innovations of postmodernism and new realism as reflections of contemporary culture. Discussions of works authored by ethnic and minority writers contribute to understanding our composite culture. Readings include poetry and prose by writers such as Allen Ginsberg, Nikki Giovanni, Charles Olson, Amari Baraka, Philip Roth, Thomas Pynchon, Vladimir Nabokov, and Gilbert Sorrentino. Spring, annually.

This course offers an opportunity to explore the English novel from Austen to Hardy. Nine or ten novels are studied with selections from Austen, Scott, Eliot, Dickens, Thackeray, Disraeli, Meredith, Trollope., the Brontes, Gaskell. No prerequisite: however, one semester of English literature survey (ENG 221 or 222) is recommended. Fall, annually.

This course is an in-depth study of the modern British novel from its beginnings in the late nineteenth century to the present. Nine or ten novels are intensely examined, with selections from such authors as Hardy, Conrad, Wilde, Lawrence, Joyce, Forester V. Woolf, Orwell, Green. No prerequisite; however one semester of English literature survey (ENG 221 or 222) recommended. Spring, annually.

This course concentrates on the developments in the short story of the twentieth century. Readings are drawn from such modern writers of wide reputation as Kafka, Joyce, Faulkner, Camus, and Lagerkvist. Fall, annually.

Explication and discussion of works by such writers as Yeats, Frost, Eliot, Auden, Roethke, and Lowell. Fall, odd-numbered years.

This course presents an overview of the development of English drama in its first two phases, concentrating particularly on the great drama produced in the Renaissance by Shakespeare's contemporaries. Students will discuss the plays as literature while taking account of the relevant theatrical considerations. No prerequisites: Fall, odd-numbered years.

This course will be a selective look at some of the major forms of drama in this extremely varied two-hundred-year period, with possible focuses on, for example, heroic tragedy, Restoration Comedy, Sentimental Comedy, Victorian Melodrama, and the precursors of modern English drama. Lectures, discussions, imaginary scene-stagings, and where possible, trips to productions will be used. No prerequisites. Fall, even-numbered years.

ENG 344: MODERN DRAMA TO 1950 3 s.h.

This course surveys influential dramatic literature of the Continental, British, and American theater from 1850 to 1950 through lectures, discussion, and experiences related to the modern stage. No prerequisites. Spring, even-numbered years.

ENG 345: CONTEMPORARY DRAMA 3 s.h.

This course explores the diversity and vitality of Continental, British, and American theater since 1950 through selected texts and theatrical experiences. No prerequisites. Spring, odd-numbered years.

ENG 355: TOPICS IN LITERARY THEORY 3 s.h.

The course is a historical study of literary criticism and aesthetic theory with emphasis upon modern trends. On demand.

ENG 365: IMAGES OF WOMEN IN LITERATURE 3 s.h.

The course examines several stereotypes of women reflected in myth and literature and formed by the historical, sociological and psychological forces which shape our perceptions of the self and of the other. The study of these images is informed by the study of the craft of literature, how things such as imagery and point of view enable the writer to successfully convey his/her idea, story. Spring, annually.

ENG 370: LITERATURE FOR YOUNG ADULTS 3 s.h.

This course introduces future teachers to the field of literature for young adults. It accomplishes this by providing them with the opportunity to read and discuss examples of classical and contemporary adolescent literature. In addition to developing first-hand knowledge of important works in the field, students will also become familiar with its history and with the controversies which have shaped it.

ENG 372: NARRATIVE GENRES IN FILM 3 s.h.

This course explores genre as sets of narrative conventions that have vitalized mainstream American film. Genre is demonstrated to be a socializing force as well as a mirror of social change. Two or three genres are highlighted each time the course is offered. With additional requirements also listed for graduate credit as ENG 572. On demand.

ENG 401: CHAUCER 3 s.h.

A study in Middle English of Chaucer's early poems. *Troilus and Criseyde*, and the *Canterbury Tales*. Fall, even-numbered years.

ENG 412: SHAKESPEARE: COMEDIES AND HISTORIES 3 s.h.

Study and discussion of problems of style, characterization, and motivation in Shakespeare's experimental and maturing comedies, chronicles and Roman plays, and tragedies. Plays to be selected from the first two periods of Shakespeare's creative production. Fall, annually.

ENG 413: SHAKESPEARE: TRAGEDIES AND ROMANCES 3 s.h.

Study and discussion of problems of style, characterization, and motivation in Shakespeare's mature comedies, Roman plays, tragedies, and romances. Plays to be selected from the last two periods of Shakespeare's creative production. Spring, annually.

ENG 441: WRITERS IN REVOLT: ENGLISH ROMANTICISM 3 s.h.

The major works of Wordsworth, Coleridge, Byron, Shelley, Keats and their contemporaries are considered and related to the intellectual, political, and social currents of the time. Spring, even-numbered years.

ENG 455: STUDIES IN DRAMA AND DRAMATIC THEORY 3 s.h.

This course is an intensive exploration of drama, concentrating especially on contemporary developments in both drama itself and in the theoretical study of drama, including recent critical attempts to synthesize literary and theatrical approaches into a new poetics. The exact focus of the course will vary with each offering. No prerequisites. On demand.

ENG 456: ENGLISH HONORS SEMINAR 3 s.h.

Devoted to intensive study of selected writers and their works, the seminar is designed to offer excellent students opportunities for advanced and unusually challenging study in literature. Admission by departmental invitation. On demand.

ENG 457: INTRODUCTION TO LINGUISTICS 3 s.h.

This course presents basic theories and analytical procedures used in contemporary linguistics systems. An introduction to psycholinguistics is provided in conjunction with extensive studies in transformational grammar. Fall, annually.

ENG 458/558: HISTORY OF THE ENGLISH LANGUAGE 3 s.h.

This history of the English language: a study of its origins and changes in structure, usage, pronunciation, spelling, vocabulary, and meaning. Intensive readings in Old and Middle English. With additional requirements, also listed for graduate credit as ENG 558. Spring, odd-numbered years.

ENG 460: INDEPENDENT STUDY 1-6 s.h.

This course permits students to explore an area of special interest in the English language or its literature. Students must develop a plan of study, secure the approval of a member of the English faculty willing to supervise the project, and submit the plan to the department chairperson. Maximum credits -- 6. Prerequisite: junior or senior standing.

ENG 461: WRITERS' WORKSHOP 3-6 s.h.

The Clarion Writers' Workshop provides an opportunity for students of writing to work with professionals in the congenial give-and-take atmosphere of the workshop situation. Visiting writers and/or coaches of writing may be in residence to work with students who wish writing experience in a variety of modes. Summers only.

ENG 482:	THE PEDAGOGY OF COMPOSITION: THEORY, RESEARCH, AND PRACTICE	3 s.h.
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A systematic study of theory, research, and practice in the teaching of composition, conducted through workshop methods. The course requires extensive writing and a major written project. Prerequisites: Secondary education majors in English must have completed ENG 111, 200, or 201, and have taken or be taking their Methods course; others by permission of the instructor. With additional requirements also listed for graduate as ENG 582. Fall, annually.

ENVIRONMENTAL STUDIES

ENVR 401	ENVIRONMENTAL PROBLEMS IN SOCIETY	3 s.h.
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Interdisciplinary study of how the human species and their social institutions interact with the physical and biological systems of the environment. Fall, annually.

ENVR 475:	FIELD NATURAL HISTORY	3 s.h.
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Competencies in biology, meteorology, geology, and astronomy are explored. Emphasis is placed on developing competencies which will be valuable in teaching Environmental (Outdoor and Conservation) Education. For non-science majors. Prerequisites: Upper division standing. Spring, annually.

NOTE: For additional courses related to Environmental Education certification endorsement, see ART 373, ED 401, and ELED and ED 403.

FINANCE

FIN 370:	FINANCIAL MANAGEMENT	3 s.h.
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A study of the theoretical and analytical framework that a financial manager can use to make decisions in a dynamic economy. Planning the need for funds, acquiring funds, and efficiently utilizing those in domestic and multinational firms are some of the topics covered. Prerequisites: ECON 212 and ACTG 252. Each semester, summer.

FIN 373:	FUNDAMENTALS OF INSURANCE	3 s.h.
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A survey of the principal methods of handling risk with particular attention to the various types of insurance and how they relate to business and personal affairs. Insurance areas covered will include Life, Accident and Health, Social, Fire and Allied Lines, Transportation Casualty and Surety. Principles of selecting insurance for the firm and private citizen will be discussed. Fall, annually.

FIN 374:	PROPERTY AND CASUALTY INSURANCE	3 s.h.
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Treatment of property and liability exposures by application of coverages -- fire and allied lines: inland and ocean marine, and casualty and surety bonding. Attention will be paid to rating, loss preventing, claims administration and corporate risk management. Spring, annually.

FIN 375:	MANAGEMENT OF FINANCIAL INSTITUTIONS	3 s h.
A descriptive analysis of the operations of financial institutions, such as commercial banks, savings banks, insurance companies. Examines techniques and principles involved in the management of financial institutions. Prerequisites: one course in Macroeconomics, FIN 370, or consent of instructor. Spring annually.		
FIN 376:	SECURITY MARKETS	3 s h.
Analysis of the organization and operation of stock and bond markets, security speculations; brokerage houses, exchange relations with other institutions; security price behavior; exchange regulation; and risk types and returns from securities. Prerequisite: FIN 370. Fall, annually.		
FIN 377:	MEDICAL CARE FINANCE	3 s h.
The role of a financial manager in the health care setting. A study of the theoretical and analytical procedures involved in medical fund raising, capital budgeting, expense analysis, rate structuring and hospital asset management as well as other financial abilities required in the operation and planning of modern health care facilities. Prerequisite: FIN 370 or consent of the instructor. Once, annually.		
FIN 471:	FINANCIAL PROBLEMS	3 s h.
A consideration by the case method of the financial problems of business firms. Prerequisite: FIN 370. Fall, annually.		
FIN 473:	RETIREMENT AND ESTATE PLANNING	3 s h.
A study of both retirement and estate planning, including an in-depth look at pensions, profit sharing, and other deferred compensation plans, trusts, bequests and tax laws. Prerequisites: FIN 373 and 476. Once annually.		
FIN 476:	SECURITIES ANALYSIS	3 s h.
A study of securities as an investment device, and the study of techniques of analysis used in selecting securities. Prerequisite: FIN 370 or 376. Spring, annually.		
FIN 480	MULTINATIONAL FINANCIAL MANAGEMENT	3 s h.
The theory and practice of financial management in the multinational firms; focuses on important differences between domestic and international financial decision making. Prerequisite: FIN 370 or an international business course. Once annually.		

FRENCH

In addition to courses listed below, students of French have an opportunity to study for a summer, a term, or an entire academic year in France and/or Canada. An opportunity to participate in a program of international business internships is made available to qualified students.

FR 101: SPECIAL TOPICS: THE EUROPEAN MIND 3 s.h.

Historical and contemporary developments on the European intellectual scene are covered by experts on individual countries with regard to their relevance for the present American student generation.

The special subject is announced at pre-registration. Open to all students of the university without prerequisites and may be taken up to three times for credit provided that different topics are offered. Two-year cycle.

FR 109: FRENCH LITERATURE IN TRANSLATION 3 s.h.

A study of representative French literary works, with particular emphasis on the characters and ideas which have influenced both French and other literatures. The course is conducted in English; no knowledge of French required; no prerequisite.

FR 151: FRENCH I (ELEMENTARY I) 3 s.h.

Essentials of grammar with emphasis on aural comprehensive and oral expression. Each semester.

FR 152: FRENCH II (ELEMENTARY II) 3 s.h.

Continuation of FR 151, with increasing emphasis on graded reading material. Prerequisite: FR 151 or equivalent. Each semester.

FR 153: ELEMENTARY FRENCH CONSERVATION 3 s.h.

Conversational practice, with extensive oral drill on grammatical patterns. Designed for those who have met the prerequisites for FR 251 but are lacking in aural-oral proficiency. May be taken concurrently with FR 251. Spring, annually.

FR 225: INTRODUCTION TO PHONETICS
AND PRONUNCIATION 3 s.h.

An introduction to the French phonetic system, including the study of phonemes, intonation, stress and rhythm. Intensive aural-oral training through phonetic dictation with transcription in the International Phonetic Alphabet and practice in diction. Introduction to corrective phonetics. Recommended for majors. Prerequisite: FR 152 or equivalent. Three-year cycle.

FR 251: FRENCH III (INTERMEDIATE I) 3 s.h.

Systematic review of basic grammar; graded readings, conversation, translation, and composition on selected topics. Prerequisite: FR 152 or two years of high school study and/or satisfactory placement. Fall, annually.

FR 252: FRENCH IV (INTERMEDIATE II) 3 s.h.

Intensive reading of selected works; outside reading, with oral and/written reports. Prerequisite: FR 251 or satisfactory placement. Spring, annually.

FR 253: COMMERCIAL FRENCH 3 s.h.

A study of commercial terminology and style, with extensive writing of business letters of various kinds. Prerequisite: FR 152 or equivalent. Two-year cycle.

FR 255: FRENCH CIVILIZATION I 3 s.h

A survey of French geography, history, literature, and culture designed to equip students with the materials and understanding necessary to the presentation of the language as a rich, meaningful, and integral part of a great civilization. Prerequisite: FR 252 or four years of high school study and/or satisfactory placement. Required of French majors. Three-year cycle.

FR 256 FRENCH CIVILIZATION II 3 s.h

Continuation of FR 255, which is prerequisite. Required of French majors. Three-year cycle.

FR 260: THE FRENCH SHORT STORY 3 s.h.

A study of representative short stories of the nineteenth centuries. All readings and discussions in French. Three-year cycle.

FR 265: INTERMEDIATE CONVERSATION 3 s.h.

Practice creative language use in conversation, to develop proficiency for everyday situations and travel at intermediate level. Intensive vocabulary enrichment for students who have completed elementary or intermediate language courses and are lacking in aural-oral proficiency. May be substituted for either FR 251 or 252 or used for major credit. Two-year cycle.

FR 351: ADVANCED FRENCH GRAMMAR AND COMPOSITION 3 s.h.

Intensive oral and written drill with emphasis on finer points of grammar, colloquial, and idiomatic usage. English-to-French translation, free composition, and conversation of everyday topics. Prerequisites: FR 255 and 256 or one literature course. Three-year cycle.

FR 353: DEVELOPMENT OF THE FRENCH DRAMA 3 s.h.

A study of the development of French drama from medieval drama to modern drama. Selections from medieval *mysteries*, *miracles*, and *jeux*, to the theater of the absurd. Three-year cycle.

FR 354: DEVELOPMENT OF THE FRENCH NOVEL 3 s.h

A study of the development of the French Novel from the medieval romance to the *roman nouveau*. Selections from major authors from Chretien de Troyes to Nathalie Sarraute. Three-year cycle.

FR 356: DEVELOPMENT OF FRENCH POETRY 3 s.h

Development of French Poetry from the Middle Ages to Modern Times. A study of poetic form from the ballad to free verse. Three-year cycle.

FR 358: FRENCH THINKERS 3 s.h.

A study of major French Thinkers from 16th, 17th and 18th centuries. Rabelais, Montaigne, Pascal, Descartes, Montesquieu, Voltaire, Diderot and Rousseau. Three-year cycle.

FR 360 FRENCH CANADIAN WRITERS 3 s.h.

A study of the major trends in French Canadian theater, prose and poetry with concentration on Gelinas, Anne Hebert, Theriault, Gabrielle Roy, Nelligan, and Grandbois. Three-year cycle.

FR 361 BLACK WRITERS IN FRENCH LITERATURE 3 s.h.

A study of the major trends in African Literature written in French. Selections from among the works of Jacques Roumain, Sembene Ousmane, Amadou Kourouma, Francis Bebey, Ferdinand Oyono, Leopold Sedar Senghor, Ame Cesaire, Leo Damas, Bernard Dadie and others. Three-year cycle.

FR 451 SUPERVISED READINGS IN FRENCH LITERATURE 3 s.h.

As the title suggests, the course is devoted to selected readings determined in relation to the needs and interests of the individual major. On demand

GENERAL STUDIES

Courses carrying the GS label are interdisciplinary in nature or are courses which do not fit into any of the usual academic disciplines. They are taken as free electives, as Personal Development and Life Skills under general education, or may with departmental approval be substituted for required courses in some majors.

GS 100 COLLEGE READING/STUDY SKILLS 2 s.h.

This course develops the reading/study skills required at the college level. Students are helped to organize study plans according to the purpose of the assignment and the nature of the materials. Emphasis is placed on applying these skills to courses students are currently studying. No prerequisite. Each semester.

GS 109 FOREIGN LITERATURE IN TRANSLATION 3 s.h.

Offered by the Department of Modern Language and Cultures, listed as FR 109, GER 109, RUSS 109, or SPAN 109

GS 110 THE STUDENT IN THE UNIVERSITY 3 s.h.

This course is designed to (1) enable the freshman student to explore and understand himself/herself as a developing adult interacting in a higher education environment, (2) identify and/or utilize campus and community resources that will enhance his/her academic program, (3) develop strategies to facilitate the learning process, and (4) apply those strategies in practical manner in order to build upon a resource base for academic skill transference. Note: This course is designed for freshman students only and is a general elective under Personal Development and Life Skills. Each semester

GS 123:	INTRODUCTION TO LOCATING AND ORGANIZING INFORMATION	3 s.h
Study of information sources and information organization, methods for surviving information explosion. Recommended as an elective for non-library science students. Not credible toward library science specialization. GS 123 earns credit toward graduation only when taken by freshmen and sophomores. Juniors and seniors will receive credit, but such credit will not count toward graduation. On demand		
GS 220:	HUMAN SEXUALITY	3 s.h.
A basic course in self-understanding. The student is given the opportunity to be informed on (a) the physical, psychological, ethical, social, and legal components of sexuality as they relate to attitudes toward self and others; (b) the roles involved in being male and female; (c) relationships as they are affected by attitudes; and (d) the responsibilities of such relationships. Each semester		
GS 222:	CREATIVE PROBLEM SOLVING	3 s.h.
An investigation of the elements of solving a variety of problems, beginning with the closed problems such as puzzles or cryptograms and progressing through simple games and complex games to the complexities of open ended problems of personal and political life. Emphasis is on development of proficiency in dealing with new situations and techniques through actual practice. No prerequisite. Each semester.		
GS 225:	HUMAN GENETICS AND SOCIETAL PROBLEMS	3 s.h.
Technological and medical advances pose serious threats to all the quality of man's genetic future. The relationship between major advances in genetic knowledge and their significance, both immediate and potential, are presented and discussed. The medical and social benefits and risks of large scale genetic screening, genetic counseling and prenatal diagnosis with abortion are thoroughly explored. The theoretical and practical possibilities of genetic engineering are considered in the light of contemporary human values. A paper on some aspects of societal problems involving human genetics is required. This course does not meet the genetics requirements for a biology major. Prerequisite: Basic Biology or permission of the instructor. Alternate years on demand.		
GS 230:	SPECIAL TOPICS -- THE EUROPEAN MIND	3 s.h.
Offered by the Department of Modern Languages and Cultures, listed as FR 101, GER 101, RUSS 101, SPAN 101. See course description under appropriate language listings.		
GS 240:	CONSUMER ECONOMICS	3 s.h.
Major aspects of personal financial management including budgeting of income and expenditures, transactions and relations with banks and other lending institutions, insurance and retirement plans, home ownership, personal taxes, savings and investment plans. Alternate years on demand.		
GS 242:	YOU AND THE LAW	3 s.h.
A survey of the major fields of law with an emphasis on historical development, basic legal principles, legal theory and procedure, and their relation to the individual. Business Administration majors may not take this course. Annually		

GS 250: THE LIFE AND MINISTRY OF JESUS 3 s.h.

A study of the life and ministry of Jesus in the light of modern contemporary biblical scholarship. Sophomore standing. Alternate years on demand.

GS 255: SURVEYING 3 s.h.

Use of the transit, angle mirror, bysometer, sexant, and other measuring instruments; simple map-making exercises and elementary surveying; construction -- use of student-made instruments and teaching devices. Prerequisites: MATH 152 or 171 or equivalent. Summers, and on demand.

GS 411: SCIENCE AND SOCIETY 3 s.h.

See cross-listing under CHEM 211.

GEOGRAPHY

NOTE: Geography courses carry social science credit only.

GEOG 100: INTRODUCTION TO WORLD GEOGRAPHY 3 s.h.

A geographic study of man's interaction with the global environment and resulting humanized, cultural landscapes. Students examine related problems of population and settlement, the origin and diffusion of culture elements, levels of culture, agricultural and industrial complexes, and other impact upon our deteriorating environment. Each semester.

GEOG 115: CONSERVATION OF NATURAL RESOURCES 3 s.h.

The use and conservation of the nation's resources of water, land, forest, wildlife, minerals, power, and human resources. Each semester.

GEOG 125: MAP INTERPRETATION 3 s.h.

A broad study of maps, charts, and atlases which is designed to develop an awareness of the great variety of maps available and to promote skill in their use. Emphasis is given to understanding map characteristics and properties needed for effective map usage, projections upon which maps are commonly drawn, coordinates and grid systems, map scales, aerial representations of relief, and statistical data. Prerequisite: Consent of instructor. Offered annually.

GEOG 225: CARTOGRAPHY I 3 s.h.

A systematic study of the basic concepts and components of thematic map making. Emphasis is placed upon familiarization with and utilization of drafting instruments and equipment essential to map design and construction. Techniques of photographic reproduction of student map projects are also presented. Two lectures and three hours of laboratory weekly. Offered annually.

GEOG 250

GEOGRAPHY OF EUROPE

3 s h.

A study of European landscapes and regions, which seeks to develop an understanding of the geographic basis of Europe's major economic and social problems. Emphasis is upon western Europe; the Soviet Union is not included in this course. Recommended for majors in history and social science. Every other year.

GEOG 255:

GEOGRAPHY OF ASIA

3 s.h

A regional course stressing the interrelationship of the economic, social, and political life of the people with their spatial environment. Problems of over population, standards of living, natural resources, industry, and government are emphasized. The Soviet Union is not included in this course. Every third semester.

GEOG 257

GEOGRAPHY OF THE UNITED STATES AND CANADA

3 s.h.

An analysis of geographic problems, natural and cultural, of the U.S. and Canada; the synthesis of physical, biotic, economic, and social patterns and problems of geographic regions of North America; the interrelationship of North American political structures and their ties with the rest of the world. Each semester.

GEOG 258:

GEOGRAPHY OF PENNSYLVANIA

3 s.h.

A regional analysis of Pennsylvania, emphasizing man's cultural and economic response to environmental factors. Special attention is given to the resources of the state, analyzing their extent, their use, the need for well directed conservation, and the regional planning program of the Commonwealth. Offered occasionally.

GEOG 260:

ECONOMIC GEOGRAPHY

3 s.h.

The production, exchange, and use of the basic commodities of the world; the relationship between the physical factors and economic conditions and the patterns of major economic activities, world trade routes; economic landscapes; problems of economic development. Recommended for majors in economics, history, and political science. Every other year.

GEOG 265:

TRADE AND TRANSPORTATION

3 s.h.

A geographic inquiry into world-wide forces of supply and demand and related transport modes and media. The central producer and service functions of population centers: world trade patterns of commodities, economic blocs, stages of economic development, and problems related to the economic interdependence of regions and nations. A course based on concepts learned in GEOG 260. Every other year.

GEOG 275:

HISTORICAL GEOGRAPHY OF THE UNITED STATES

3 s.h.

The natural and cultural regions of the pre-Columbian United States and the geography of settlement and regional development of the country to 1890. This course is very desirable for history majors. Offered occasionally.

GEOG 300:

SPECIAL TOPICS

Topics of special interest in various areas of physical, human or regional geography. The format used will be selected and designed by the professor as the most suitable to the study. Enrollment by consent of the instructor. Offered occasionally.

GEOG 325: CARTOGRAPHY II

3 s.h.

A systematic study of the new dimensions of cartography in use today. Emphasis placed upon the techniques used in the construction of three-dimensional maps and models of statistical surfaces, diagrams, cartograms, negative scribing, and color separation. Two lectures and three hours of laboratory weekly. Prerequisite: Cartography I and consent of instructor. Every other year.

GEOG 350: COMPUTER CARTOGRAPHY

3 s.h.

A systematic study of the newest dimension of cartography in use today. Designing and constructing computer maps is an integral part of the course. Background in computer programming is desirable. No prerequisites. Every other year.

GEOG 385 or
ES 385: CLIMATOLOGY

3 s.h.

A systematic study of three major components of climatology. Physical aspects of the atmosphere are analyzed as a series of long-term weather phenomena. Regional characteristics of climate are studied on the basis of world-wide patterns. Applied aspects of climate demonstrate the inter-relationship and importance of both physical and regional climatology to man. Acceptable for social science or natural science credit. Prerequisite: ES 111 or 280. Every other year.

GEOG 400: AERIAL PHOTO INTERPRETATION

3 s.h.

A systematic study of aerial photographs for geographic investigation of physical and cultural features of the landscape; the application of remote sensing to topographic and planimetric map construction, agricultural and land use identification, landform study, and forestry. Prerequisite: consent of instructor. Every other year.

GEOG 450: FIELD GEOGRAPHY

3 s.h.

A systematic study of the techniques essential to geographic field investigation. Emphasis is placed upon practical, first-hand experiences in the field where students learn the techniques and procedures of compass traversing, plane tabling, rural and urban land use surveying, and field research. Prerequisite: Cartography I and consent of instructor. Offered occasionally.

GERMAN

In addition to the courses listed below, students of German have an opportunity to study for a summer, a term or an entire year in Germany and/or Austria. An opportunity to participate in a program of international business internships in Germany is available for qualified students.

GER 101	SPECIAL TOPICS: THE EUROPEAN MIND	3 s.h.
<p>Historical and contemporary developments on the European intellectual scene are covered by experts on individual countries with regard to their relevance for the present American student generation.</p> <p>The special subject of each semester offering is announced at pre-registration. Open to all students of the university without prerequisites and may be taken up to three times for credit provided that different topics are offered. Two-year cycle.</p>		
GER 109	GERMAN LITERATURE IN TRANSLATION	3 s.h.
<p>A study of representative German literary works, with particular emphasis on the characters and ideas which have influenced both German and other literatures. The course is conducted in English; no knowledge of German required, no prerequisites. Two-year cycle.</p>		
GER 151	GERMAN I (ELEMENTARY I)	3 s.h.
<p>Essentials of grammar with emphasis on aural comprehension and oral expression. Each semester.</p>		
GER 152:	GERMAN II (ELEMENTARY II)	3 s.h.
<p>Continuation of German 151, with increasing emphasis on graded reading material. Prerequisite: GER 151 or equivalent. Each semester.</p>		
GER 153:	ELEMENTARY GERMAN CONVERSATION	3 s.h.
<p>Practice in conversational patterns and development of useful proficiency for everyday situations and travel. Designed for those students who have met the prerequisite for German 251 but are lacking in aural-oral proficiency. May be taken concurrently with GER 251. Spring, annually.</p>		
GER 225:	INTRODUCTION TO GERMAN PHONETICS AND PRONUNCIATION	3 s.h.
<p>An introduction to the German phonetic system, including the study of phonemes, intonation, stress and rhythm. Intensive aural/oral training through phonetic dictation with transcription in the International Phonetic Alphabet and practice in diction. Introduction to corrective phonetics. Recommended for majors. Prerequisite: GER 152 or equivalent. Three-year cycle.</p>		
GER 251:	GERMAN III (INTERMEDIATE I)	3 s.h.
<p>Brief systematic review of basic grammar; graded readings, conversation, translation, and composition on selected topics. Prerequisite: GER 152 or two years of high school study and/or satisfactory placement. Fall, annually.</p>		
GER 252:	GERMAN IV (INTERMEDIATE II)	3 s.h.
<p>Intensive reading of selected works; outside reading with oral and/or written reports. Prerequisite: GER 251 or satisfactory placement. Spring, annually.</p>		
GER 253:	SCIENTIFIC GERMAN	3 s.h.
<p>A study of scientific terminology and style, with extensive readings in various scientific fields. Prerequisite: GER 251 or equivalent. Science and mathematics majors may substitute this course for GER 252. Three-year cycle.</p>		

GER 254	COMMERCIAL GERMAN	3 s.h.
A study of commercial terminology and style, with extensive practice in writing of business letters of various kinds. Prerequisite: Elementary German. Two-year cycle.		
GER 255	GERMAN CIVILIZATION I	3 s.h.
A survey of German geography, history, literature, and culture, designed to equip students with the materials and understanding necessary to the presentation of the languages as rich, meaningful, and integral part of a great civilization. Prerequisite: GER 252 or four years of high school study and/or satisfactory placement. Required for German majors. Three-year cycle.		
GER 256	GERMAN CIVILIZATION II	3 s.h.
Complement to GER 255. Required for German majors. Three-year cycle.		
GER 260	THE GERMAN SHORT STORY	3 s.h.
A study of representative <i>Novellen</i> of the nineteenth and twentieth centuries. All readings and discussions in German. Two-year cycle.		
GER 265	INTERMEDIATE CONVERSATION	3 s.h.
Practice creative language use in conversation, to develop proficiency for everyday situations and travel at intermediate level. Intensive vocabulary enrichment for students who have completed elementary or intermediate language courses and are lacking in aural-oral proficiency. May be substituted for GER 251 or 252 or used for major credit. Two-year cycle.		
GER 351	ADVANCED GERMAN GRAMMAR AND COMPOSITION	3 s.h.
Intensive oral and written drill, with emphasis on finer points of grammar, colloquial, and idiomatic usage. English-to-German translation, free composition, and conversation on everyday topics. Required for German majors. Three-year cycle.		
GER 352	SURVEY OF GERMAN LITERATURE THROUGH THE CLASSICAL AGE	3 s.h.
Study and discussion of the main trends of German thought and literary expression. Emphasis is placed upon the works of Goethe, Schiller, and Lessing. Three-year cycle.		
GER 353	THE MODERN GERMAN DRAMA	
German drama from the middle of the 19th century to the present, covering representative writers of the Realist, Naturalist, and Expressionist movements, as well as selected contemporary writers. Three-year cycle.		
GER 355	GERMAN ROMANTICISM	3 s.h.
The older and younger schools of German Romanticism (Jena, Berlin, and Heidelberg) with emphasis on the revival of folk poetry and consideration of influences upon American Romanticism. Representative authors: Holderlin, Novalis, Arnim, and Brentano. Three-year cycle.		

GER 358: CLASSICAL GERMAN LITERATURE. GOETHE,
SCHILLER AND LESSING 3 s.h.

Goethe's *Faust* and other great works of the Golden Age of German literature. Three-year cycle.

GER 361: GERMAN LYRIC POETRY 3 s.h.

The German lyric from Moerike, Hofmannsthal, Rilke, and George to the post-expressionist movement and contemporary poets such as Benn, Nelly Sachs, and Enzensberger. Three-year cycle.

GER 451: SUPERVISED READINGS IN GERMAN LITERATURE 3 s.h.

This course is devoted to selected readings determined in relation to the needs and interests of the individual major. On demand.

HABILITATIVE SCIENCE

HS 405: SUBSTANCE ABUSE 3 s.h.

This is a study of the physiological and psychosocial implication of drug or alcohol abuse, over-medication, and drug dependence, with concern for the processes of intervention, advocacy, treatment, and prevention. Fall, annually.

HS 460/560: MODELS OF HUMAN SERVICES DELIVERY SYSTEMS 3 s.h.

This course analyzes the purposes, structure and context of the entire network of human services delivery models in Pennsylvania with comparative reference to selected models outside of Pennsylvania. Prerequisite: SPED 310. Fall, annually.

HS 465: ASSESSMENT OF ADAPTIVE BEHAVIOR
AND VOCATIONAL POTENTIAL 3 s.h.

This course provides a conceptual frame of reference for the theoretical aspect of adaptive behavior (social and vocational), the instrumentation and systems of assessment, and directed experience in the processes of actual client-assessment, documentation and reporting. Fall, annually.

HS 470/570: THERAPEUTIC AND RESIDENTIAL
SERVICE PROGRAMS 3-6 s.h.

This course analyzes the entire spectrum of habilitative, therapeutic, recreational, and residential programs, at the service delivery level, that are mandated and provided in Pennsylvania for persons with special needs. Statutes and regulations are studied and practicum experiences are conducted in human service programs. Spring, annually.

This is a full-time, semester-long supervised experience in community based habilitation programs for developmentally disabled persons, including professional development experiences in community residential programs, vocational rehabilitation services and MH MR Base Service Units, or similar social services. Each semester.

Waiver: Change in prerequisite may be made with approval of the department chair and course instructor.

HEALTH AND PHYSICAL EDUCATION

ACTIVITY AND RECREATION COURSES

The following activity courses are offered for fulfillment of the general education requirement. Courses emphasize the fundamental techniques, strategy, and rules of the activity.

HPE 140:	ARCHERY	1 s.h.
HPE 141:	BADMINTON	1 s.h.
HPE 142:	BOWLING	1 s.h.
HPE 143:	GOLF	1 s.h.
HPE 144:	HANDBALL AND RACQUETBALL (Men's Rules)	1 s.h.
HPE 145:	RACQUETBALL (Women's Rules)	1 s.h.
HPE 146:	CROSS COUNTRY SKIING	1 s.h.
HPE 147:	BEGINNING TENNIS	1 s.h.
HPE 148:	WRESTLING	1 s.h.
HPE 150:	CANOEING	1 s.h.
HPE 161:	BASKETBALL (Men's Rules)	1 s.h.
HPE 162:	BASKETBALL (Women's Rules)	1 s.h.
HPE 163:	VOLLEYBALL (Men's Rules)	1 s.h.
HPE 164:	VOLLEYBALL (Women's Rules)	1 s.h.
HPE 191:	CAMPING AND OUTDOOR RECREATION	2 s.h.
HPE 247:	INTERMEDIATE TENNIS	1 s.h.

AQUATIC COURSES

The following aquatic courses are offered for fulfillment of the general education requirement

HPE 131 BEGINNING SWIMMING 1 s.h.

For students who cannot swim one length of the pool. The course consists of drown-proofing and elementary back, breast, and freestyle strokes.

HPE 230: SENIOR LIFE SAVING 1 s.h.

Prerequisite: Students must demonstrate advance swimming skills. Successful completion of the course leads to the Red Cross Life Saving Certificate.

HPE 231: INTERMEDIATE SWIMMING 1 s.h.

Prerequisite: Students should be able to swim one length of the pool. The course consists of multi-stroke refinement, drown-proofing, and physical conditioning through swimming.

HPE 233: SPRINGBOARD DIVING 1 s.h.

Prerequisite: Students should be competent in the basic swimming strokes and drown-proofing. The course consists of advanced swimming and diving skills, stroke refinement, aquatic games, and recreational skills.

HPE 330: WATER SAFETY INSTRUCTOR 1 s.h.

Prerequisite: Students must hold a valid Red Cross Life Saving Certificate. Successful completion of the course leads to a Red Cross Safety Instructor Certificate.

HPE 332: ADVANCED AQUATICS 1 s.h.

Prerequisite: Students should be competent in the basic swimming practices and drown-proofing. The course consists of advanced swimming and diving skills, stroke refinement, aquatic games, and recreational skills.

DANCE COURSES

HPE 171: MODERN DANCE 1 s.h.

A study in beginning dance technique, incorporating both barre and centre work. Correct form and body placement along with flexibility and control are covered.

HPE 173: AEROBIC DANCING I 1 s.h.

This course is designed to integrate basic modern dance techniques with scientific principles of aerobic fitness. An enjoyable way to develop cardiovascular endurance.

HPE 273: AEROBIC DANCING II 1 s.h.

A continuation of Aerobic Dancing I, with advanced dance routines and techniques. Emphasis on cardiovascular endurance as well as general body conditioning. Prerequisite: Basic knowledge in dance or Aerobic Dancing I.

HEALTH EDUCATION

2 s.h.

Consideration of the physical and mental equipment of the individual and of the practical application of health knowledge and concepts in personal, family, community, and environmental living. Special emphasis is placed in the areas of mental health, drug abuse, human sexuality and marriage, and the major diseases and health problems confronting society. A requirement of all students. Offered each semester through the team teaching concept.

HPE 314: CARDIO PULMONARY RESUSCITATION

1 s.h.

A requirement for the Athletic Coaching Program, the course is designed to follow the recommendation and guidelines of the American Red Cross. Students will receive an American Red Cross CPR Certificate upon successful completion of the course. Each semester.

HPE 317: FIRST AID SAFETY

2 s.h.

The responsibilities and duties of the teacher in the development and teaching of programs in first aid and safety that are related to the student's school and community. The American Red Cross Standard First Aid Course will be included. Each semester.

PHYSICAL FITNESS COURSES

HPE 181: ADAPTED PHYSICAL EDUCATION

1 s.h.

A modified or corrective physical education course for those who by reason of illness or disability are unable to participate in the more vigorous forms of physical education activities. On demand.

HPE 182: POSTURE AND BODY MECHANICS

1 s.h.

An analysis and application of correct postures and body mechanics through a physical fitness program of exercise and aerobic dance. On demand.

HPE 185: PHYSICAL FITNESS AND CONDITIONING

1 s.h.

This course enables students to develop a fitness and conditioning program to fit their individual needs through knowledge gained in areas such as nutrition, use of conditioning equipment, weight control, and fitness tests. Each semester.

HPE 186: PHYSICAL FITNESS THROUGH WEIGHT LIFTING

1 s.h.

This fitness course covers all basic weight lifting techniques and modern principles for developing and improving anaerobic fitness for both male and female students. Each semester.

SPECIALIZED COURSES

Athletic Coaching Program

The athletic coaching program is established for those who intend to coach in inter-school athletic programs but do not have a degree in physical education.

The minimum requirements of this program is 19 credit hours, 13 of which are required. The other 6 credit hours may be selected from the Theory and Techniques of Coaching courses: HPE 343, 344, 345, 346, 347, 348, 351, 352, 353, or 354

HPE 343-354. THEORY AND TECHNIQUES OF COACHING

The purpose of these courses is to acquire knowledge in theories and techniques of coaching specific sports. Main areas covered are rules and regulations, fundamentals, organizational principles, specific conditioning programs, scouting, and technical tactics.

HPE 343: THEORY AND TECHNIQUE OF COACHING GOLF 1 cr.

Fall, even numbered years.

HPE 344: THEORY AND TECHNIQUE OF COACHING TRACK AND FIELD 1 cr.

Spring, even numbered years.

HPE 345: THEORY AND TECHNIQUE OF COACHING SWIMMING 2 cr.

Spring, odd numbered years.

HPE 346: THEORY AND TECHNIQUE OF COACHING GYMNASTICS 2 cr.

Spring, even numbered years.

HPE 347: THEORY AND TECHNIQUE OF COACHING TENNIS 1 cr.

Fall, even numbered years.

HPE 348: THEORY AND TECHNIQUE OF COACHING WRESTLING 2 cr.

Spring, odd numbered years.

HPE 351: THEORY AND TECHNIQUE OF COACHING BASKETBALL 2 cr.

Fall, odd numbered years.

HPE 352: THEORY AND TECHNIQUE OF COACHING BASEBALL 2 cr.

Spring, odd numbered years.

HPE 353: THEORY AND TECHNIQUE OF COACHING VOLLEYBALL 2 cr.

Fall, odd numbered years.

HPE 354	THEORY AND TECHNIQUE OF COACHING FOOTBALL	2 cr.
Fall, even numbered years.		

REQUIRED COACHING COURSES

HPE 406	ATHLETIC INJURIES	3 cr
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This is a course on care and prevention of athletic injuries. The latest principles and techniques of taping common athletic injuries and new theories on the prevention of athletic injuries are the basics of the course. Fall, annually

HPE 407:	PHYSIOLOGICAL FOUNDATIONS OF COACHING	3 cr
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The primary purpose of this course is the study of basic scientific principles of physiology and how they can be applied to conditioning programs for the athlete. All phases of physical training are covered along with evaluation of modern training devices. Spring, annually.

HPE 408:	PRINCIPLES AND PROBLEMS OF ATHLETIC COACHING	3 cr.
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A study of modern techniques and practices used in the organizational procedure of athletic programs. Major problem areas such as practice and game organization, purchase and care of equipment, budget and finances, public relations, legal liability, drug abuse, and sports psychology. Modern trends and issues in athletics are analyzed as well as various philosophical views of athletics as a part of the educational curriculum. Fall, annually.

HPE 409	KINESIOLOGICAL FOUNDATIONS OF COACHING	3 s.h.
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This course is designed to help the coach increase his or her understanding of basic scientific information concerning athletic movement by utilizing the conceptual approach. The three main areas of study are applied anatomy, the production of motion, and application. The application of scientific principles to athletic skills will aid in the coaching and teaching of skills. Spring, annually

ELEMENTARY MAJOR COURSES

HPE 223:	PHYSICAL EDUCATION FOR ELEMENTARY MAJORS	1 cr.
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Required of all students majoring in Elementary Education. Emphasis is placed on modern physical education skills and activities of the elementary child. Each semester.

HPE 323:	MODERN CURRICULUM AND METHODS IN ELEMENTARY PHYSICAL EDUCATION	1 cr.
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Required of all students majoring in Elementary Education. The course is designed to give the elementary major practical experience in integrating physical activities into academic learning. Each semester.

The study and application of the modified or restricted activities to be provided at all grade levels for the child who may not safely participate in the regular instructional class. Spring, annually.

HPE 410:

PSYCHOMOTOR DEVELOPMENT IN EARLY CHILDHOOD
RATIONALE AND INTEGRATED ACTIVITIES

3 cr

This course is designed for Early Childhood majors and elementary education majors, and concentrates on developing a better understanding of the child's physical development sequence. Through this understanding, pre-school experiences are designed that integrate cognitive formation processes with developmental movement activities. Students will have an opportunity to teach an integrated academic and movement lesson with area pre-school and early elementary age children. Prerequisite: The course should be taken in the student's fifth semester and HPE 223. Each semester.

HISTORY

HIST 111:

ANCIENT AND MEDIEVAL CIVILIZATION

3 s.h.

The course includes a survey of prehistoric cultures and civilization from its historical beginning to 1300. Its purpose is to present a knowledge of the origins of the broad social, political, intellectual, and economic movements of the past from which the student may gain an understanding of civilization today. Each semester.

HIST 112:

EARLY MODERN CIVILIZATION, 1300 TO 1815

3 s.h.

A study of significant movements and events from 1300 to 1815. The course emphasizes the interrelationships between cultures of various world regions. The influence of European development on other world areas is also stressed. Each semester.

HIST 113:

MODERN CIVILIZATION, 1789 TO PRESENT

3 s.h.

A study of significant movements and events of 1789 to the present. The course emphasizes interrelationships between the cultures of various world regions, with major attention on the influence European development has exerted on other world areas in the 19th and 20th centuries. Each semester.

HIST 120:

UNITED STATES HISTORY TO 1877

3 s.h.

A survey of the United States history from the period of exploration through the Reconstruction period. Each semester.

HIST 121:

UNITED STATES HISTORY SINCE 1877

3 s.h.

A survey of United States history from Reconstruction to the present. Each semester.

HIST 150: HISTORY IN THE HEADLINES 3 s.h.

Students will develop historical perspective and depth through inquiry and analysis of social, political, economic and technological world events. Through the use of a basic news source such as the *Christian Science Monitor* and use of library resources on special topics, students will increase their global consciousness, their skills in classification and their knowledge about third world and major powers' relationships. Each semester.

HIST 215: TOPICS IN AMERICAN HISTORY 3 s.h.

A topical approach to the study of American history, permitting students to pursue an indepth examination of selected problems. No prerequisite. On demand.

HIST 216: BUSINESS IN THE AMERICAN ECONOMY 3 s.h.

A survey of the historical development of the American economy, emphasizing the role of the private business sector. Fall, alternate years.

HIST 220: TOPICS IN NON-WESTERN AND THIRD WORLD HISTORY 3 s.h.

A topical approach to the study of non-western and Third World history and culture, permitting students to examine selected problems. On demand.

HIST 230: WOMEN IN THE UNITED STATES 3 s.h.

A survey of American Women's History from colonial times to the present. This course will examine both the history of the female experience in the United States and the relationship between women and the rest of society. Topics will include the power of the domestic sphere; suffragism; female reform; and modern feminism.

HIST 235: TOPICS IN EUROPEAN HISTORY 3 s.h.

A study of the major social, economic, and political ideas of Europe in the Eighteenth, Nineteenth, and Twentieth Centuries. On demand.

HIST 254: HISTORY OF LATIN AMERICA: COLONIAL PERIOD 3 s.h.

This course surveys the development of Colonial Latin America from its discovery to 1825. The economic, social, political, and cultural development receives detailed attention. Fall, alternate years.

HIST 255: HISTORY OF LATIN AMERICA: NATIONAL PERIOD 3 s.h.

The main emphasis of this course is on the history of the Latin American countries since 1825. The economic, social, political, and cultural development receives detailed attention. Fall, alternate years.

HIST 256: HISTORY OF PENNSYLVANIA 3 s.h.

A study of the founding and development of Pennsylvania from its colonial beginning to the present time. Emphasis is placed on the social, economic, and political development in the different periods of its history. Special attention is given to the diversity of the people, their institutions and problems, and the growth of Pennsylvania to a leading position in our modern industrial world. Fall, annually.

HIST 260	FASCISM: HITLER, AND THE HOLOCAUST	3 s.h.
An examination of the rise of the fascist government in Europe from 1919 through World War II. Special emphasis is given to the rise of Nazism and the personalities of the Third Reich leadership. The course ends with an examination of the Holocaust. Spring, annually.		
HIST 275	INDIA THROUGH THE AGES	3 s.h.
Examination of the historical development of Indian Civilization from its early origins to the coming of the Europeans, with emphasis on the classical period, religion, social organizations, and the ancient Hindu and Medieval Moslem periods. Spring, annually.		
HIST 277	VIETNAM: WAR AND PEACE	3 s.h.
The course presents an outline of the history of Vietnam and its colonization by the French during the 19th century to the so-called Peace Settlement of 1973 and the new war which followed it. The main focus of the course is from 1945, and the nature of the Vietnamese Revolutionary War is examined. The history of American involvement, their objectives and consequences of the Vietnamese debacle is studied. The course closes with consideration of the global impact of war. Fall, annually.		
HIST 286	HISTORY OF MODERN CHINA AND JAPAN	3 s.h.
A historical study of the transformation which has taken place in China and Japan in modern times as a result of an external impact as well as forces within far Eastern societies. Fall, alternate years.		
HIST 299	THE HISTORY OF AMERICAN LABOR	3 s.h.
The course examines the history of the American working men and women from the colonial period to the present. It examines not only the growth of the trade union movement and its socio-political and economic impact, but also the nature of the work performed by labor and the way laboring people have lived. On demand.		
HIST 300	THE AMERICAN MILITARY EXPERIENCE	3 s.h.
A study of the relationships and impact of warfare and military forces in the establishment, expansion, preservation, and development of the United States. Emphasis on understanding the principles of war and their utilization in understanding the political and military decisions that were made in shaping this nation. Spring.		
HIST 320	MEDIEVAL HISTORY	3 s.h.
A study of the Middle Ages from the fall of Rome to 1500. Prerequisite: HIST 111 or consent of the instructor. Every third semester.		

HIST 330 EUROPE DURING THE RENAISSANCE 3 s.h.

A survey of the course of Europe's development from the thirteenth through the sixteenth centuries with emphasis on political, social, economic, and cultural trends and achievements and the problems of historical interpretation they pose. Every third semester.

HIST 335 EUROPE DURING THE REFORMATION 3 s.h.

A survey of Europe's development during the sixteenth and seventeenth centuries with particular attention to the role of religion and religious issues and the interaction between religion and political, economic, and cultural affairs. Every third semester.

HIST 340: HISTORY OF EUROPE FROM 1660 TO 1814 3 s.h.

A study of the social, economic, political, religious, and cultural experiences of the European people from the Age of Louis XIV through the Napoleonic Wars. On demand.

HIST 345: HISTORY OF EUROPE FROM 1815 TO 1924 3 s.h.

A study of the social, economic, political, religious, and cultural experiences of the European people from the Congress of Vienna to the death of Lenin. On demand.

HIST 350. COLONIAL AMERICA 3 s.h.

A study of colonial history beginning with the European background of colonization and continuing through the American Revolution. Fall, alternate years.

HIST 351 UNITED STATES: THE EARLY REPUBLIC 3 s.h.

A study of the Federalist Era, Jeffersonian and Jacksonian America. This course will examine the formation of the republic through the Federal Constitution, the Jeffersonian revolution and the Age of Jackson. The ideas and personalities that shaped the nation will be examined

HIST 352 CIVIL WAR AND RECONSTRUCTION 3 s.h.

This course is a basic study of the growth of sectional differences between North and South from 1820 to 1850. It further examines the failure of compromise efforts in the 1850's and the causes of secession. The war and the consequences of reconstruction policies to 1877 are traced in light of modern civil rights problems. Fall, alternate years.

HIST 353: U.S. AGE OF REFORM (1870-1920) 3 s.h.

A detailed look at the Gilded Age, Populist, and Progressive Periods in American history. The course will examine the reform phenomena that characterized the late 19th and early 20th centuries. The emphasis will be on the motivation, objectives, accomplishments, and failures of the various reform movements. Each reform group will be considered in the context of a period of rapid social and economic change.

HIST 354 RECENT AMERICAN HISTORY 3 s.h.

A study of the political, social, and economic developments and foreign affairs of the U.S. from World War I to the present. On demand.

HIST 357	TUDOR-STUART ENGLAND	3 s.h
An examination of the significant political, cultural, social and religious developments in England from the accession of Henry VII to the death of Queen Anne and the transition to the House of Hanover. Spring, alternate years.		
HIST 361	HISTORY OF AMERICAN SCIENCE AND TECHNOLOGY	3 s.h
Students will survey the development of the American technological experience and be able to assess the historical impact of science on U.S. society and politics. Students will discuss cases and issues on: The rise of America as an industrial nation, the role of scientific responsibility and black scientists, U.S. nuclear, environmental and international policies and procedures, and the reshaping of technology today. Spring, alternate years.		
HIST 362	HISTORY OF AFRO-AMERICA	3 s.h
A survey of Afro-American history from its African beginnings to contemporary times (1969). Special emphasis is placed on tracing the role of the Negro in American History in order to develop a better perspective on his contribution to the American way of life. A close study will be made of the junctures in American History where the problems of the Afro-American took on new meaning for American growth. Spring, alternate years.		
HIST 366	RUSSIAN SINCE 1815	3 s.h.
An examination of Russia's development during the 19th and 20th centuries. The first part of the course will focus on Russia and its people under the Czar and the drift to Revolution. The second part of the course will focus on Soviet society and Communism in theory and practice.		
HIST 368	CHINA SINCE 1949	3 s.h.
An examination of the Chinese revolutionary struggle under Mao Tse-Tung and the Communist programs of socioeconomic construction through ideology and organization. Special emphasis is given to internal restructuring and international relations. On demand.		
HIST 370	HISTORY OF THE MIDDLE EAST	3 s.h.
This survey is an area of study of the early classical era by way of an advanced intensive exploration of the civilization in the Mediterranean East and Middle East. After an introduction to the religion of Judaism and Christianity in their political setting, the cultural contributions of the Semites, Greeks, and Romans are examined. The Islamic Age is stressed. Emphasis is placed upon modern identification of the countries that make this an explosive part of the world -- Jordan, Israel, Lebanon, Iran, Iraq, Arabia, Syria, Egypt. Their relationship to the great powers is given attention. On demand.		
HIST 385	SOUTHEAST ASIA SINCE 1945	3 s.h
Different systems of World colonial rule, with major emphasis on territorial expression, political administration, and economic patterns; reaction to alien rule, rise of nationalism, and social, economic, and political problems since independence. On demand.		
HIST 401	INDEPENDENT STUDY	3 s.h.
Students may explore special fields of interest after locating a department advisor and submitting a plan of study. On demand.		

HIST 410: HISTORIOGRAPHY 3 s.h.

An introduction to Historical method and theory. This course will explore a variety of interpretive theories and specialized approaches employed by contemporary historians to traditional and non-traditional problems. The emphasis will be upon development of the student's critical abilities. Permission of instructor required.

HIST 451: DIPLOMATIC HISTORY OF THE UNITED STATES
FOR THE AMERICAN REVOLUTION TO 1912 3 s.h.

This course is designed to examine patterns of realism and idealism in American diplomacy from the Revolution to the Era of T.R. and Taft. Attention is given to diplomatic thought on concepts such as the national interest, the Monroe doctrine, manifest destiny, the balance of power, and the emergence of the United States as a world power. Fall, alternate years.

HIST 452: DIPLOMATIC HISTORY OF THE UNITED STATES
SINCE 1912 3 s.h.

This course is designed to examine patterns of realism and idealism in American diplomacy from Woodrow Wilson to the present. Attention is focused on diplomatic thought upon the issues of the national interest, World War I, Neutrality, World War II, Internationalism, the Cold War, and the United States response to Europe and new emerging powers. Fall, alternate years.

HIST 458: ENGLISH CONSTITUTIONAL HISTORY 3 s.h.

A consideration of constitutional government in England from the beginning of English history to the present. A study of governmental powers, political and judicial processes, and the relationship of liberty and authority to the individual living under the government is included. Fall, alternate years.

HIST 471: THE FRENCH REVOLUTION 3 s.h.

The Old Regime and its critics of the 18th century are examined; the social and political changes in France from 1798 to 1815 are analyzed; the diplomatic and international influence of the French Revolution are surveyed. Spring, alternate years.

HUMANITIES

HUM 120: HUMANITIES I: ANTIQUITY THROUGH THE MIDDLE AGES 3 s.h.

This interdisciplinary course in the humanities focuses on western man's values, beliefs, and accomplishments as reflected in the arts, and man's historical development from the Classical period to the close of the Middle Ages. No prerequisite. On demand.

HUM 121: HUMANITIES II: THE RENAISSANCE TO THE PRESENT 3 s.h.

A continuation of the study of western culture from the Renaissance to the present. No prerequisite. On demand.

LIBRARY SCIENCE

LS 255: INTRODUCTION TO MEDIA LIBRARIANSHIP 3 s.h.

Broad overview of libraries and library media centers and the profession of librarianship beginning with the history of libraries and concluding with the impact of technology on libraries. Fall, annually.

LS 257: BASIC INFORMATION SOURCES AND SERVICES 3 s.h.

Emphasis on the approaches to locating information. The criteria for selection of reference materials and the examination of reviewing media for new reference aids. Organization of reference service. The study of a selected list of reference works. Fall, annually.

LS 258: SELECTION OF LIBRARY MEDIA 3 s.h.

Familiarity with basic bibliographical tools, including current reviewing media and the book trade. The establishment of policies and criteria for the selection of and evaluation of book and non-book materials. Prerequisite to LS 356 and LS 358. Spring, annually.

LS 260: DEVELOPMENT AND ADMINISTRATION OF LIBRARIES 3 s.h.

The development of the library as an institution. The concept of philosophy of librarianship. General principles of administration and their application to the organization and management of different types of libraries. Problems and practices with respect to a library's function, staff, collections, and building. Fall, odd numbered years.

LS 356: MEDIA FOR ADOLESCENTS 3 s.h.

Survey of adolescent literature and other media. Study of the reading interests of high school age students and characteristics of adolescent literature and methods of introducing young adults to books. Techniques of preparing and delivering book talks and developing young adult programs. Prerequisite: LS 258 or permission of the instructor. Fall, annually.

LS 357: ORGANIZATION OF MEDIA 3 s.h.

Organization of print and non-print materials for effective service. Principles and methods of descriptive cataloging. The structure and application of the Dewey Decimal Classification, the Library of Congress Classification, and standard subject authority lists. The use of printed cards and the utilization of other work simplification techniques. The study of filing rules. Maintenance of library catalogs -- shelf lists, divided and dictionary card catalogs, and the printed book catalog. Fall, annually.

LS 358: MEDIA FOR CHILDREN 3 s.h.

Survey of children's literature and related materials. A study of the principles of selection and evaluation of books, periodicals, and other materials for children. Reading guidance, with attention to materials for special groups. Development of general and subject bibliographies, preparation of annotations. Techniques of story-telling and the selection of materials for the story hour. Prerequisite: LS 258 or permission of the instructor. Spring, annually.

LS 360: ADMINISTRATION OF SCHOOL MEDIA CENTERS 3 s.h.

Study of the objectives and functions of the modern school library media center. Techniques and administrative procedures, budget preparation, personnel space, and equipment. Acquisition, preparation, and the circulation of all forms of media. Maintenance of the collection. Standards for evaluation of school library media centers. Relations with other school libraries and the public library. The development of a functional school library media program. Spring, annually.

LS 432: COLLOQUIUM no credit

A series of lectures, discussions, and film demonstrations presented by visiting lecturers and members of the staff. Required of all library science students. Each semester.

LS 455: SPECIAL TOPICS IN LIBRARIANSHIP 3 s.h.

In-depth discussion, study, and research of a selected topic related to the role of the library in responding to social issues, service to special groups, or problem areas, such as Media and Minorities, OCLC On-Line Bibliographic Control and Media Programs for the Gifted. (Not creditable toward library science certification.) On demand.

LS 457: INDEPENDENT STUDY/SEMINAR 1-3 s.h.

Opportunity to explore in depth a facet of librarianship according to need or interest, under the direction of a faculty member of the college. Special area to be approved by a faculty committee. Development of research techniques. The preparation of a scholarly paper or completion of a special project.

LS 459: MEDIA, METHODS, AND THE CURRICULUM 3 s.h.

Planning for the effective use of school library media services in cooperation with the instructional staff. Examination of school library media philosophies and educational objectives. Development of a library media program. Examines the librarian's role in designing curriculum, in developing teaching-learning strategies, and in working with teachers, students and administrators. Prerequisites: LS 257, 258, either 356 or 360, 490, and COMM 405. Spring, annually.

LS 490: LIBRARY MATERIALS AND SERVICES FOR EXCEPTIONAL STUDENTS 3 s.h.

An opportunity for library science students to explore the unique characteristics and instructional needs of exceptional students who use the school library in order to develop collections of materials and to design programs of services to accommodate those needs. The role of bibliotherapeutic techniques is investigated to determine their validity for the exceptional student. Fall, annually

MANAGEMENT

MGMT 120 INTRODUCTION TO BUSINESS 3 s.h.

An introductory course which emphasizes the philosophical and historical background of business institutions, the functional relationship within the business firms, and relates the firm to the overall framework of society. Freshmen only. Recommended for business students who have not selected a specific major. Required for the A.S. Degree at Venango Campus. Each semester.

MGMT 121 FUNDAMENTALS OF MANAGEMENT 3 s.h.

This course is an introduction to management and organization. The emphasis is placed on managerial processes and functions and the interface of the manager with supervisors, subordinates, and the work environment. Each semester only at Venango Campus.

MGMT 227 APPLIED SUPERVISION 3 s.h.

This course is designed to prepare the student for a position as a first-time supervisor and includes the essential elements of good management practices, and stresses application rather than theoretical supervision concepts. Prerequisite: Sophomore standing and MGMT 120. Spring, annually only at Venango Campus.

MGMT/PSY 228: HUMAN BEHAVIOR IN ORGANIZATIONS 3 s.h.

A survey of the application of psychological theory, techniques, and research to organizations. The psychological principles of selection, training, attitudes, motivation, job satisfaction, job evaluation, and performance are analyzed. No prerequisite. Offered only at Venango Campus.

MGMT 320: MANAGEMENT THEORY AND PRACTICE 3 s.h.

This course focuses on the development of management thought and its application. Topics covered include planning, organizing, controlling, decision-making, motivation, leadership, work groups, and organizational change and development. Special areas to be considered are the domestic and international environments and changing societal values. Prerequisite: Junior standing. Each semester.

MGMT 321 ORGANIZATION THEORY AND BEHAVIOR 3 s.h.

A theoretical development of the relationship between organizational effectiveness, organizational design, and organizational resources. The perspective is that of the administrator and focuses on managerial variables. Prerequisite: MGMT 320. Each semester.

MGMT 322: SELECTION AND MANAGEMENT OF BUSINESS
INFORMATION SYSTEMS 3 s.h.

This course shows how to develop business management information systems, either on his own or with the aid of system technicians. It stimulates the systems techniques in organizing and analysis which the student will use in practice. Prerequisite: MGMT 320. Spring, annually.

MGMT 323: PROBLEMS IN SMALL BUSINESS 3 s.h.

The study of the problems of initiating and operating a small business. Emphasis is on the use of existing data and sources of information available to the small businessman as well as formal knowledge of course work. Prerequisite: MGMT 320. Fall, annually.

MGMT 324 PERSONNEL MANAGEMENT 3 s.h.

A study of the activities involved in human resource management. Topic areas include the following: job analysis, human resource planning, recruitment, selection, equal employment opportunity, training and development, performance appraisal, compensation practices, and safety and health. A system approach is stressed. Prerequisite: MGMT 320. Each semester.

MGMT 420: OPERATIONS RESEARCH I 3 s.h.

Scientific methods which provide executive departments with a quantitative basis for making decisions. Emphasis is placed on deterministic methods such as the transportation problem, linear programming, dynamic programming and PERT. Prerequisite: ECON 221. Fall, annually.

MGMT 421 OPERATIONS RESEARCH II 3 s.h.

Scientific methods which provide executive departments with a quantitative basis for making decisions. Emphasis is placed on stochastic processes such as inventory control, queuing theory and Markov chains. These processes are examined in a computer simulation environment. Prerequisite: ECON 222. Spring, annually.

MGMT 425: PRODUCTION MANAGEMENT 3 s.h.

Philosophy of F. W. Taylor and other management pioneers. Nature of the production cycle. Simplification and diversification of product lines, purchasing, materials, control, routing, scheduling, dispatching, plant layout. Prerequisite: ECON 221, MGMT 320, and senior standing. Each semester.

MGMT 426: INTERNATIONAL BUSINESS 3 s.h.

This is an introductory course designed to acquaint the student with the international environment and the growing discipline of multinational business in this environment -- i.e., multinational management of: strategic planning, organization, production, research and development, marketing, finance, and human resources. Prerequisite: MGMT 320. Each semester.

MGMT 427: SMALL BUSINESS SEMINAR 3 s.h.

The course is designed for a "hands-on" approach to small business, manufacturing, wholesaling, or retailing. The student will have an opportunity to perform a managerial audit of an existing small business, do the necessary work preliminary to the purchase of a small business, or start a new small business. The course will enable the student to put into practice the knowledge obtained in MGMT 323, which is a prerequisite, and to explore further sources of research data. Spring, annually.

MGMT 445 **MANAGEMENT SEMINAR** 3 s.h.

Designed for management majors as a follow-up course to MGMT 320. The course presents the views of numerous management theorists and practitioners. It includes broad ranging areas of study and an integration of these areas through discussion, individual written and oral reports and some case analyses. The student has the opportunity to analyze and integrate theory and management process. Prerequisite: MGMT 320 and senior standing. Spring, annually.

MGMT 482 **COLLECTIVE BARGAINING** 3 s.h.

A study of the negotiation and scope of collective bargaining contracts; the substance of bargaining power and institutional goals are applied in the resolution of industrial conflict. Prerequisite: MGMT 324. Each semester.

MGMT 483 **WAGE AND SALARY ADMINISTRATION** 3 s.h.

A study of the formation and administration of compensation systems as they relate to the changing nature of employee rewards and expectations. Emphasis will be given to job and performance evaluation, fringe benefits, and rewards for special groups. Prerequisites: Junior standing and MGMT 324. Spring, annually.

MGMT 485 **INDUSTRIAL RELATIONS AND PUBLIC POLICY** 3 s.h.

An examination of the industrial relations functions as they relate to federal, state, and local statutes and industrial policies. Specific topics covered include OSHA, EEOA, NLRA, LMRA, and LMRDA. Prerequisite: MGMT 324. Fall, annually.

MGMT 499 **SPECIAL TOPICS IN MANAGEMENT** 3 or 6 credits

Various current topics affecting management practice or theory will be presented. Different topics may be covered from year to year as subjects of critical importance or interest occur. Prerequisite: Junior standing and MGMT 320.

MARKETING

MKTG 360 **PRINCIPLES OF MARKETING** 3 s.h.

The topics included are the role of the consumer motivation; selling and buying functions, physical distribution management, and government regulation and control in marketing. The purpose of the course is for the student to develop an understanding of the increasing complexity of the modern marketing system, why it is essential, and how it performs in both domestic and international marketing situations. Prerequisites: ECON 211, 212, and junior standing. Each semester.

MKTG 361 **MARKETING MANAGEMENT** 3 s.h.

A study of coordinative effort in planning, organizing, and controlling marketing activities that direct the flow of goods and services from producer to consumer. Prerequisite: MKTG 360. Each semester.

MKTG 362 RETAILING MANAGEMENT 3 s.h.

Retailing management is designed to introduce students to the field of retailing where they will study such areas as organizational structure, merchandising practices and procedures, promotional activities, store planning, control, etc. Prerequisite: MKTG 360, or instructor approval. Each semester.

MKTG 363: ADVERTISING MANAGEMENT 3 s.h.

The uses of advertising and advertising campaigns by business which give emphasis to the patterns and types of marketing strategy and its various functions, legal and moral obligations, problems in developing and evaluating advertising programs, budgeting, scheduling, and client-advertising agency relationship. Prerequisite: MKTG 360. Each semester.

MKTG 364 SALESMANSHIP 3 s.h.

Introduction to the principles of selling. Concerned with influencing, persuading, or leading other individuals to buy goods and/or services. Useful for anyone considering a career in sales or sales management. Prerequisite: Permission of the instructor. Fall, annually.

MKTG 365 INDUSTRIAL MARKETING 3 s.h.

An examination of the characteristics of the industrial market; principles and practices in purchasing raw materials, supplies, and equipment, methods of selling, channels of distribution, promotional activities, and sales organization and policies. Prerequisite: MKTG 360. Each semester.

MKTG 366: PHYSICAL DISTRIBUTION MANAGEMENT 3 s.h.

Concerned with factors involved in the selection of marketing channels and problems involved in managing the task efficiently. Prerequisite: MKTG 360. Fall, annually.

MKTG 460: SALES MANAGEMENT 3 s.h.

Designed to cover all aspects concerned with the management of a sales force including the selection and testing of salesmen, training, devising compensation plans and expense accounts, territories, quotas, and evaluations. Case studies and problem solving techniques are utilized. Prerequisite: MKTG 360. Annually.

MKTG 461: MARKETING RESEARCH 3 s.h.

The application of scientific and statistical methods and tools to the solution of marketing problems are studied. Prerequisites: ECON 221, 222 and MKTG 360. Each semester.

MKTG 465: MARKETING PROBLEMS 3 s.h.

A consideration by the case method of the problem facing the producer and middleman. Prerequisites: MKTG 360 and senior standing. Each semester.

The study of theories, models, recent research and research techniques in consumer motivation and decision making. Prerequisite: MKTG 360 and PSY 211 or permission of the instructor. Each semester

An analytical approach to study marketing management decisions involving multinational operations. The focus of the course will be on the management of the marketing functions within the multinational corporation. Prerequisite: MKTG 360. On demand

Various current topics which affect marketing practice or theory will be presented. Different topics will be covered from year to year as subjects of critical importance arise. Prerequisite: MKTG 360 or permission of the instructor.

MATHEMATICS

The usual entry level for students in the natural sciences and mathematics and for other students with good math ability and background, regardless of their major, is MATH 270, but science and math majors with insufficient background may select MATH 115, 152, or 171. Business students normally enter at MATH 131, Elementary Education majors at MATH 111. MATH 112 is the usual course for students with no mathematics requirements outside general education, but MATH 221 is a good alternative and other electives are also available. For more detail, students should contact their advisors or the chairman of the Mathematics Department

An introduction to basic algebraic concepts, review of algebraic and mathematical manipulation, emphasis on individual attention. (No student who has satisfactorily completed another mathematics course may subsequently receive credit toward graduation for MATH 100.) Each semester, each summer.

Structure of the real number system. Elementary set theory. Open only to students in the College of Education, others only with permission of the department. Each semester

A course designed to acquaint the student with the nature and scope of modern mathematics and its applications. Emphasis is on concepts and understanding rather than the acquisition of techniques. The course is intended for majors in the arts, humanities, and social sciences. Each semester

MATH 115: COLLEGE ALGEBRA 3 s.h.

Polynomials, equations and inequalities, exponents and radicals, logarithms. Prerequisite: 2 years of high school algebra, or MATH 100. Students completing MATH 131 or 171 may not select MATH 115. Each semester.

MATH 131: MATHEMATICS FOR BUSINESS AND ECONOMICS 3 s.h.

Mathematical techniques with special applications in business and related areas. Topics include matrices, linear programming, math. of finance, probability, and statistics. Prerequisite: two years of high school algebra. Each semester.

MATH 152: TRIGONOMETRY 3 s.h.

Properties of trigonometric functions and their inverses. Spring, annually.

MATH 171: PRECALCULUS 4 s.h.

Review of high school algebra, inequalities, analytic trigonometry, logarithms, elementary theory of equations, complex numbers, and mathematical induction. Prerequisite: 2 years of high school algebra. Students may not receive credit for both MATH 115 and 171. Each semester.

MATH 211: MODERN CONCEPTS OF MATHEMATICS FOR ELEMENTARY TEACHERS 3 s.h.

Investigation of selected topics considered essential to the mathematical background of an elementary education major. Included are introductions to mathematical reasoning and problem solving techniques, probability and statistics, geometry, and computer programming. Annually.

MATH 212: INTUITIVE GEOMETRY 3 s.h.

An intuitive overview of geometry; axiomatic structure of geometry, basic constructions, proofs. Not open to mathematics majors. Prerequisite: Any 100 level MATH course. On demand.

MATH 213: INTUITIVE ANALYSIS 3 s.h.

An elementary introduction to the basic properties of the real number system and the calculus, including functions, sequences, limits, continuity, integrals, and derivatives. Not open to mathematics majors. Prerequisite: Any 100-level mathematics course. On demand.

MATH 214: FINITE MATHEMATICS 3 s.h.

An introduction to the basic properties of finite mathematics, including partitions of sets, counting theorems, permutations, combinations, probability. Suggested for students in elementary education. On demand.

MATH 215: MATHEMATICAL CONCEPT LABORATORY -- AN ACTIVITY-ORIENTED APPROACH 3 s.h.

Development of certain concepts of mathematics using an activity-oriented approach. Class is conducted in a laboratory atmosphere. Topics considered are the rational number system, number theory, induction, measurement, geometric shapes. On demand.

MATH 221: STATISTICS WITH APPLICATIONS 3 s.h

Basic principles and methods of statistical analysis useful in the social sciences, biology, and education. Designed specifically for students not majoring in mathematics. (Not open to mathematics majors.) Prerequisite: one year of high school algebra, or its equivalent. Each semester.

MATH 232: CALCULUS FOR BUSINESS I* 3 s.h

Differential calculus with application to business and the social sciences. Topics include limits, derivatives, maxima and minima, and introduction to integration related topics. Prerequisite: MATH 131, 171, or the equivalent. Each semester.

MATH 233: CALCULUS FOR BUSINESS II* 3 s.h

Applications of integral calculus to business and the social sciences. Topics include rules of integration, definite and indefinite integrals, series and partial derivatives. Prerequisite: MATH 232 or the equivalent. Each semester.

*MATH 232-3 are designed for students outside the natural sciences. Students in Math and Sciences and better prepared students in other disciplines are encouraged to select MATH 270-271 instead.

MATH 240: DISCRETE MATHEMATICAL STRUCTURES 3 s.h.

Mathematical expertise necessary to facilitate the efficient computer manipulation of data. Topics include permutations and combinations, boolean logic, lattices, graphs, etc. Prerequisite: MATH 171, CIS 151 or 163. Each semester.

MATH 255: SURVEYING 3 s.h.

Use of the transit, angle, mirror, bypsometer, sextant, and other measuring instruments; simple map-making exercises and elementary surveying; construction -- and use of student-made instruments and teaching devices. Prerequisites: MATH 152 or 171 or equivalent. Summers, and on demand.

MATH 270: CALCULUS WITH ANALYTIC GEOMETRY I 4 s.h.

Elementary analytic geometry, limits, continuity, differentiability. Prerequisite: MATH 171 or its equivalent. Each semester.

MATH 271: CALCULUS WITH ANALYTIC GEOMETRY II 4 s.h.

Review of limits, definition of the Reimann integral and applications. Integration techniques: topics in analytic geometry. Prerequisite: MATH 270. Each semester.

MATH 272: CALCULUS WITH ANALYTIC GEOMETRY III 4 s.h.

Basic properties of limits, continuous and differentiable functions. Sequences, series, solid analytic geometry, functions of several variables, multiple integrals. Prerequisite: MATH 271. Each semester.

MATH 321 INTRODUCTORY MATHEMATICAL STATISTICS 3 s.h.

The course is designed to provide an overview of the basic theory and application of mathematical statistics. Emphasis is placed on understanding and applying basic statistical theory. Prerequisite: MATH 271. Annually.

MATH 350: ORDINARY DIFFERENTIAL EQUATIONS 3 s.h

First order differential equations. Linear differential equations of higher order; systems of differential equations. Series methods. Prerequisite: MATH 272. Annually.

MATH 357: MODERN GEOMETRY 3 s.h.

Axiomatic treatment of topics in geometry. Prerequisite: MATH 272. Biannually.

MATH 360, 460: NUMERICAL METHODS IN
 MATHEMATICS I, II 3 s.h.

Types of error, calculus of finite differences, numerical evaluation of integrals, algorithms for the solution of algebraic equations, and systems of algebraic equations with applications to selected math problems and computer programming of algorithms. Prerequisite: MATH 271. Each spring semester (360); alternate fall semesters (460).

MATH 369 BOOLEAN ALGEBRA 3 s.h.

An introduction to the theory of Boolean Algebra, with applications to the theory of sets, logic, and electromechanisms. Prerequisite: MATH 272 or permission of instructor.

MATH 370 INTRODUCTION TO LINEAR ALGEBRA 3 s.h.

Introduction to vector spaces, linear transformations, matrices, determinants, and related topics. Prerequisite: MATH 271. Each semester.

MATH 451, 452: MODERN ALGEBRA I, II 3 s.h. each

An introduction to groups, rings, integral domains and fields. Prerequisite: MATH 272. Fall and spring respectively.

MATH 454: THEORY OF NUMBERS 3 s.h.

Factorization, congruence, quadratic reciprocity. Number theoretic functions, diophantine equations, continued fractions. Prerequisite: MATH 272.

MATH 455: PROBABILITY 3 s.h.

Basic concepts of elementary probability; probability in finite spaces; conditional probability; independent trials; sophisticated counting; probability in relation to random variables. Prerequisite: MATH 272.

MATH 456: MATHEMATICAL STATISTICS 3 s.h.

Mathematical expectation; discrete and continuous random variables; probability densities; sampling distributions; point estimations; interval estimations; tests of hypotheses; regression and correlation; analysis of variation, moment-generating functions. Prerequisites: MATH 272 and 455.

MATH 459 INTRODUCTION TO COMPLEX VARIABLES 3 s h

An introduction to complex numbers, analytic functions, poles, residues, and their applications, including the fundamental theorem of algebra. Prerequisite: MATH 272.

MATH 471, 472 INTRODUCTION TO REAL ANALYSIS 3 s h

Limits, continuity, differentiability, integrability, and convergence for functions of a real variable and several variables. Prerequisite: MATH 272.

MATH 473 ELEMENTARY TOPOLOGY 3 s h

Topological spaces, metric spaces, compactness, connectedness. Prerequisite: MATH 272.

MATH 480 TOPICS 3 s h

This course offers special topics reflecting the interests of the students. The specific topic to be covered each term will be announced in advance. Prerequisite: MATH 272 and permission of the instructor.

MATH 490,
491, 492 SEMINAR I, II, III 1 s h each

Seminar in mathematics. An oral and written presentation is required.

MATH 499 INDEPENDENT STUDY 1-3 s h

Individual study under faculty supervision. Prerequisite: 12 hours of MATH numbered 300 or above and written consent of the department chairman.

MEDICAL TECHNOLOGY PROFESSIONAL STUDY YEAR

MT 401 CLINICAL MICROBIOLOGY 6-9 s h

Identification and clinical pathology of bacteria, fungi, viruses and parasites. Techniques to isolate, stain, culture, and determine antimicrobial susceptibility. Instrumentation, quality control.

MT 402 CLINICAL CHEMISTRY 6-9 s h

Enzymology, endocrinology, biochemistry of lipids, carbohydrates and proteins, metabolism of nitrogenous end products, physiology and metabolism of fluids and electrolytes, and toxicology as related to the body and diseases. The technical procedures include calorimetry, spectrophotometry, electrophoresis, chromatography, automation and quality control.

MT 403: CLINICAL HEMATOLOGY/COAGULATION 3-6 s.h.

The composition and functions of blood; diseases related to blood disorders; the role of platelets and coagulation. Manual and automated techniques of diagnostic tests for abnormalities.

MT 404: CLINICAL IMMUNOHEMATOLOGY 4-6 s.h.

Blood antigens, antibodies, crossmatching, hemolytic diseases, and related diagnostic tests. An indepth study of blood donor service and its many facets such as transfusions, medico-legal aspects, etc.

MT 405: CLINICAL IMMUNOLOGY/SEROLOGY 2-4 s.h.

Immune response, immunoglobulins, autoimmunity and complement, and related tests and diseases. Survey and demonstration of serological diagnostic tests.

MT 406: CLINICAL SEMINAR 0-4 s.h.

Other courses which are not included in the above (such as orientation, laboratory management, education, clinical microscopy) and/or are unique to the individual hospital program.

MILITARY SCIENCE

MS 101: WORLD MILITARY HISTORY: THE GREAT CAPTAINS 2 s.h.

A study of the relationship and impact of warfare and military forces on the social, economic, and technological development of the world as well as a study of strategy, tactics and personalities involved in major conflicts. Also, see leadership laboratory. Each semester.

MS 102: AMERICAN MILITARY HISTORY 2 s.h.

A study of the evolution of American military institutions and policies from colonial troops to present. Emphasis is on the relationship between the military and other aspects of American society and the role of the military in the establishment, expansion, preservation, and development of the nation. Also, see leadership laboratory. Spring, annually

MS 203: FUNDAMENTALS OF TOPOGRAPHIC MAP INTERPRETATION 2 s.h.

The systematic study of topographic maps, their interpretation and use. Emphasis is given to understanding the grid and coordinate system, map scale, graphic representations, and terrain analysis. Fall, annually.

MS 204: NATIONAL SECURITY AND CONCEPT OF FORCE 2 s.h.

Study of national security concepts, policies and the national decision-making process with emphasis on current policies and events. Spring, annually

MS 305:	FUNDAMENTALS OF ORGANIZATION LEADERSHIP AND MODERN LEARNING/TEACHING RELATIONSHIP	3 s h
Study in practical application of principles of Leadership/Management as applied in classroom and field to include case studies in psychological, physiological, and sociological factors which affect human behavior; individual and group solution of leadership problems common to organizations and small military units. Also, see leadership laboratory Fall, annually.		
MS 306:	STUDY OF ADVANCED LEADERSHIP AND THE PLANNING AND EXECUTION OF MODERN TACTICAL OPERATIONS	3 s h.
Analysis of leader's role in directing and coordinating efforts of individuals and small units in execution of offensive and defensive tactical missions, to include command and control systems, the military team, and communications techniques. Also, see leadership laboratory Spring, annually.		
MS 407:	MANAGEMENT OF THE MILITARY COMPLEX TO INCLUDE FUNDAMENTALS OF MILITARY AND INTERNATIONAL LAW	3 s.h.
Study of the various managerial elements needed to effectively control a military organization and the techniques used to accomplish these functions. Studies in military law and international law prepare the students for their legal responsibilities. Includes obligation and responsibilities of an officer. Fall, annually.		
MS 408:	SEMINAR IN ANALYSIS AND MANAGEMENT	3 s.h.
Selected management problems and situations will be presented as they relate to organizations and the military. Spring, annually.		
MS 001:	LEADERSHIP LABORATORY	
A practical experience designed for the attainment and application of leadership principles. Concurrently scheduled in conjunction with MS 101 and 102, it provides for practical challenges in personal accomplishments, both physical and mental, and for development of team work and leadership. Includes mountaineering, marksmanship, water survival and orienteering.		
MS 003:	LEADERSHIP LABORATORY	
A practical experience designed for the attainment and application of leadership principles. Concurrently scheduled in conjunction with MS 305 and 306. It provides for practical challenges in personal accomplishment, both physical and mental, and for the development of team work and leadership.		

MUSIC

MUS 111 INTRODUCTION TO MUSIC 3 s.h.

An introductory course designed to provide a basic orientation to the enjoyment and understanding of music. Use is made of recordings, concerts, and other media. No prerequisite courses or special abilities required. Each semester.

MUS 112 INTRO TO AFRO-AMERICAN MUSIC 3 s.h.

An introductory course designed to provide a basic orientation to the enjoyment and understanding of Afro-American music. Use is made of recordings, filmstrips, and films. The course is non-performance. No prerequisites. Each semester.

MUS 131 FUNDAMENTALS OF MUSIC 3 s.h.

The basic vocabulary of music fundamentals: notation, scale structures, key signatures, triads and seventh chords, rhythm and meter, harmony and its functions, intervals, sight-singing and ear training, dynamics, transposition, practical application by use of a keyboard instrument, introductory study of two-and-three part forms, etc. No prerequisite. Each semester.

MUS 133 MUSIC FUNDAMENTALS FOR ELEMENTARY TEACHERS 2 s.h.

A study of specific fundamental concepts of music both written and aural, technical and aesthetic, as preparation for the implementation of music activities to be conducted by the elementary classroom teachers. The degree and complexity of musical concentration presented is determined and guided by the practical application of knowledge assimilated as it directly relates to its use in the general classroom. No prerequisite. Elementary Education majors only. Each semester.

MUS 134 BASIC MUSIC METHODS FOR ELEMENTARY TEACHERS 2 s.h.

A study of basic approaches for development and methods and materials applicable to teaching music in the elementary grades. Emphasis is placed upon increasing keyboard and vocal skills, relevant theoretical background, and upon musical activities to be conducted by the classroom teacher. Prerequisite: MUS 131 or 133. Each semester.

MUS 135: THEORY OF MUSIC I 4 s.h.

Review of basic properties and notation of tone. Tonality, chord structure and texture. Functions of primary and secondary triads. Chord progressions. Melodic and harmonic cadences. Harmonization and voice leading. First and second inversion chords. Formal characteristics of melody. Embellishing tones. Introduction to harmonic, melodic and rhythmic ear training, dictation, and sight-singing. For music majors or by permission. Fall, annually.

MUS 136: THEORY OF MUSIC II 4 s.h.

Continuation of Theory of Music I. Further aspects of harmony: diatonic seventh chords, secondary dominants, mutated chords, harmonic sequence. Further discussion of melodic and harmonic cadences. Modulation and mutation. Introduction to binary and ternary forms. Further development of ear training, dictation, and sight-singing. For music majors or by permission. Prerequisite: MUS 135. Spring, annually.

MUS 151:	HISTORY OF LITERATURE OF MUSIC I ANTIQUITY TO 1600	3 s.h.
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Music before the Middle Ages: Greece, Rome, Byzantium, Medieval music: Gregorian Chant, secular forms. Early polyphony: music of the 13th century Ars Nova in France and Italy. English and Burgundian schools: Burgundian Chanson, Motet, Mass. Renaissance music: social conditions; Netherlands Chanson Motet, Mass; Venetian, French, German, Spanish, and English music of the Renaissance. The Late Renaissance: Lutheran, Chorale, Psalter, Anglican Church music; Palestrina, Victoria, Di Lasso, Byrd. English keyboard music; Gabrieli and instrumental music. For music majors or by permission. Fall, annually.

MUS 152	HISTORY AND LITERATURE OF MUSIC II BAROQUE AND CLASSICAL 1600-1800	3 s.h.
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Comparison of Renaissance and Baroque music; Early Baroque in Italy; Early and Middle Baroque in Northern countries; Middle Baroque in Italy; French music under absolutism; English music during Commonwealth and Restoration; Late Baroque in Italy and France; fusion and co-ordination of national styles; social conditions; Rococo; the Viennese Classic period; style and form of Viennese classic music: Haydn, Mozart. For Music majors, or by permission. Prerequisite: MUS 151. Spring, annually.

MUSICAL ORGANIZATIONS: MUS 150-195 may be taken for one credit or for no credit. Credits thus earned may not be counted among the Humanities in General Education but may be counted under Personal Development and Life Skills and under Free Electives, with no more than eight of these credits counted for graduation. Open to all students with permission of instructor

MUS 150:	LYRIC THEATER WORKSHOP	0-1 s.h.
MUS 153:	CONCERT CHOIR	0-1 s.h.
MUS 154:	MADRIGAL SINGERS	0-1 s.h.
MUS 155:	SYMPHONY ORCHESTRA	0-1 s.h.
MUS 156:	SYMPHONIC BAND	0-1 s.h.
MUS 157:	MARCHING BAND	0-1 s.h.
MUS 159:	LABORATORY JAZZ BAND	0-1 s.h.
MUS 190:	BRASS CHOIR	0-1 s.h.
MUS 191:	BRASS ENSEMBLE	0-1 s.h.
MUS 192:	PERCUSSION ENSEMBLE	0-1 s.h.
MUS 193:	STRING ENSEMBLE	0-1 s.h.
MUS 195:	WOODWIND ENSEMBLE	0-1 s.h.

MUS 160: PIANO CLASS I1 s.h.

Designed to service two categories of students: the non-piano music education major and the non-music major. The purpose for both is the same: teaching piano to beginners in such a manner that they attain an acceptable degree of elementary technical proficiency at the keyboard, a basic knowledge of fundamental scales and chords and a burgeoning comprehension of the existence and desirability of musicianship. Stress is placed on the development of basic keyboard skills and upon a musical performance of all levels of performance. The class is limited to 12 students, therefore the possibility exists that a non-music major may be required to reschedule the class so that freshman/sophomore music majors can elect the class to meet curriculum requirements. Prerequisite: MUS 131 or equivalent background. Each semester.

MUS 161: PIANO CLASS II 1 s.h.

This course is designed to help the student to develop the ability to perform the skills begun in Piano Class I, at a more advanced level. Prerequisite: MUS 160, Piano Class I, or permission of instructor. Each semester.

MUS 162: VOICE CLASS I 1 s.h.

Designed to give the student an approach to vocal methods in order to eliminate problems. The purpose is to teach each student to treat his voice as an instrument. Class instruction is offered in voice for the non-voice major. Emphasis is placed on the development of the voice instrument and an attitude of artistic maturity on the part of the students and upon artistic performance at all levels of proficiency. Prerequisite: MUS 131 or equivalent background. Each semester.

MUS 163: VOICE CLASS II 1 s.h.

A continuation of Voice Class I. It is designed to provide more advanced techniques for producing a free, artistic sound. A survey of various vocal styles from traditional repertoire is provided. Prerequisite: Voice Class I or permission of instructor. Each semester.

APPLIED MUSIC

Individual instruction in strings, woodwinds, brass, percussion, piano, voice, and organ. Stress is placed on the development of an attitude of artistic maturity on the part of the student and upon artistic performance at all levels of proficiency. Admission by audition and permission of instructor and department chairman. Admission of non-majors is dependent upon availability of the staff. Prerequisite: MUS 131 or equivalent background. Course numbers are listed below.

MUS 164 VIOLIN, VIOLA 1 s.h.

MUS 165: CELLO, STRING BASS 1 s.h.

MUS 166: FLUTE, OBOE, SAXOPHONE 1 s.h.

MUS 167: CLARINET, BASSOON 1 s.h.

MUS 168: TRUMPET, FRENCH HORN 1 s.h.

MUS 169:	TROMBONE, BARITONE HORN, TUBA	1 s.h.
MUS 170:	PERCUSSION	1 s.h.
MUS 171:	PIANO	1 s.h.
MUS 172:	VOICE	1 s.h.
MUS 173:	ORGAN	1 s.h.

Offered each semester.

Advanced applied instruction is for Performance majors only.

MUS 264:	VIOLIN, VIOLA	4 s.h.
MUS 265:	CELLO, STRING BASS	4 s.h.
MUS 266:	FLUTE, OBOE, SAXOPHONE	4 s.h.
MUS 267:	CLARINET, BASSOON	4 s.h.
MUS 268:	TRUMPET, FRENCH HORN	4 s.h.
MUS 269:	TROMBONE, BARITONE HORN, TUBA	4 s.h.
MUS 270:	PERCUSSION	4 s.h.
MUS 271:	PIANO	4 s.h.
MUS 272:	VOICE	4 s.h.
MUS 273:	ORGAN	4 s.h.

Offered each semester.

MUS 232:	KEYBOARD SKILLS FOR ELEMENTARY TEACHERS	3 s.h.
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Various styles of accompaniment; also sight reading of classroom and community songs. Emphasis upon the development of technical skills, reading facility, and memorization. Prerequisite: MUS 131 or equivalent background. On demand.

MUS 233:	SONG LITERATURE FOR ELEMENTARY TEACHERS	3 s.h.
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A further study of the materials used in music education in the elementary school, including a review of the song material available in various music series textbooks and vocal command of this material. Emphasis is on the criteria for choosing song material to illustrate various musical concepts, along with guidelines for music curriculum development. Prerequisites: MUS 131, 133, and 134 or permission of instructor. On demand.

MUS 235:	THEORY OF MUSIC III	4 s.h.
Continuation of Theory II. Further aspects of harmony: ninth, eleventh, thirteenth, embellishing diminished, Neapolitan, and augmented sixth chords. Aspects of tonal structure and form. Thematic development in two-voice counterpoint. The rondo and sonata-allegro forms. Advanced ear training, dictation, and sight-singing. For music majors or by permission. Prerequisite: MUS 136. Fall, annually.		
MUS 236:	THEORY OF MUSIC IV	4 s.h.
Continuation of Theory III. Investigation of enriched tonal resources through chromaticism, modality, and modulation. Melodic, harmonic, formal, and contrapuntal processes and analytical techniques in twentieth century music. Discussion of the fugue and the variation forms. Advanced ear training, dictation, and sight-singing. For music majors or by permission. Prerequisite: MUS 235. Spring, annually.		
MUS 249:	HISTORY OF AFRO-AMERICAN MUSIC	3 s.h.
A study of Afro-American music in the United States from its point of origin in African cultures through the development of slave music, blues, ragtime, and jazz. An in-depth and analytical study of the styles and techniques employed in various idioms of Afro-American music with regard to vocal and instrumental usage of melody, harmony, and rhythm. Prerequisite: 1 semester of music theory (MUS 131, or MUS 135) or some equivalent background, or permission of the instructor. On demand.		
MUS 251:	HISTORY AND LITERATURE OF MUSIC III --- BEETHOVEN, AND THE ROMANTIC PERIOD 1800-1890	3 s.h.
Beethoven: life and character; Beethoven's music. Romanticism: historical perspective: social conditions; painting and literature. Vocal music: instrumental music: opera and music drama. The national schools: Russia, Bohemia, Scandinavia, France, England, Spain, American music. Prerequisite: MUS 151 and 152, or by permission. Fall, annually.		
MUS 252:	HISTORY AND LITERATURE OF MUSIC IV, CONTEMPORARY MUSIC: 1890 TO THE PRESENT	3 s.h.
The late romantics; impressionism; Stravinsky; Bartok; Hindemith; neoclassicists; nationalists, Soviet realism; neoromantics; 12-tone composers; expressionism serial; music. Schoenberg, Berg, Webern, etc.; experimentalists, electronic music, Stockhausen, Boulez, etc. American music from the late 19th century to the present. Prerequisite: MUS 151, 152, and 251, or by permission. Spring, annually.		
MUS 253:	HISTORY OF JAZZ	2 s.h.
Emphasis is placed on the nature and process of jazz and particularly its historical background and development in the United States. This study presents logical musical derivatives and developments and demonstrates the important elements that comprise individual jazz styles as they have evolved to the present time. Alternate years		

MUS 260	VOCAL PEDAGOGY	1 s.h
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Systematic study of the physical nature and function of the vocal instrument and breathing process and how they relate to the fundamental principles of teaching vocal technique. Application of this knowledge to the principles of vocal production and technique through lectures, demonstration and discussion, as well as group participation in instructing each other. Prerequisite: Minimum of 4 semesters of Voice or Voice Class I and II, or permission of instructor. Spring, biennially.

MUS 274	INTRODUCTION TO THE BUSINESS OF MUSIC	3 s.h
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An introduction to the multi-faceted music industry of today. Topics studied include music retailing, instrument sales, the music agent, artist management, contracts, concert promotion, licensing, publishing, copyright, songwriting, unions and guilds, music in production, advertising and promotion, music in broadcasting and film, career planning and development. Does not count toward Humanities requirement. Prerequisite: Sophomore standing. Alternate years.

INSTRUMENTAL TECHNIQUES

This sequence of courses is designed to acquaint the music major with a basic knowledge of the instruments commonly used in bands and orchestras. Sufficient technique must be developed by each student to enable him to introduce these instruments successfully to beginners in elementary to secondary school instrumental programs. Includes proper methods of tone production, fingerings, bowing techniques, embouchure and breath control, selection and purchase of instruments for school use, care and maintenance of instruments, selection, care and adjustment of reeds or strings, storage of instruments, methods used in instruction of the instrument, and historical aspects of each family of instruments. For music majors or by permission.

MUS 280:	INSTRUMENTAL TECHNIQUES I: VIOLIN, VIOLA	1 s.h.
MUS 281:	INSTRUMENTAL TECHNIQUES II: CELLO, STRING BASS	1 s.h.
MUS 282:	INSTRUMENTAL TECHNIQUES III: FLUTE, OBOE, SAXOPHONE	1 s.h.
MUS 283:	INSTRUMENTAL TECHNIQUES IV: CLARINET BASSOON	1 s.h.
MUS 284	INSTRUMENTAL TECHNIQUES V: TRUMPET, FRENCH HORN	1 s.h.
MUS 285:	INSTRUMENTAL TECHNIQUES VI: TROMBONE, BARITONE HORN, TUBA	1 s.h.
MUS 286:	INSTRUMENTAL TECHNIQUES VII: PERCUSSION	1 s.h.

Each semester.

Section 01 - This course is the music department's student recital series, which satisfies the department requirement. All music students must elect this course for seven to eight semesters as an extension of their curricular and performance activities. The music majors experience and/or perform music literature of all periods appropriate to their instrument or voice.

Section 02 - Junior Recital - Music majors elect this section if they are preparing for a recital in their junior year of study. This section is elected concurrently with Section 01.

Section 03 - Senior Recital - Music majors elect this section if they are preparing for a recital in their senior year. All B.M. in Performance majors must elect Section 03 to fulfill the requirement of a senior degree recital. This section is elected concurrently with Section 01.

MUS 333:	ELEMENTARY MUSIC METHODS	3 s.h.
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The role of music in elementary school; the roles of classroom teachers, the music specialists, and the consultant. Plans, attitudes, and problems in teaching vocal and instrumental music; curriculum development. Evaluation of musical experience and growth in primary, intermediate, and upper elementary grades. Music reading as an integral part of the total music program. Musical growth and experience in singing, part-singing, listening, instrumental and rhythmic activities. Emphasis on development of ability to use the voice effectively in teaching, and on the thorough familiarity with music series texts, use of keyboard, rhythmic instruments, recordings and new developments in teaching aids. Introduction to the Orff and Kodaly methods. Supervised teaching experience. For music majors only. Prerequisites: MUS 135, 136. Fall, annually.

MUS 334	JUNIOR HIGH AND SECONDARY MUSIC METHODS	3 s.h.
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A critical study of the entire intermediate and secondary school music program; academic, vocal, and instrumental. Curriculum planning, motivation, evaluation, selection of materials and texts, audio and visual aids, and effective teaching methods for the general music course and for elective courses in theory, history, and appreciation of music. Particular attention is given to the organization and development of both large and small vocal and instrumental groups; recruitment; selection of repertoire; performance levels; music rehearsal rooms and facilities; public performance and public relations. For music majors only. Prerequisites: MUS 135, 136. Spring, annually.

MUS 349	ART SONG LITERATURE I	2 s.h.
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Representative song repertoire of the German lied and the English language art song will be studied from historical and performance perspectives. The songs of Schubert, Schumann, Brahms, Wolf, Strauss, Britten and Rorem will be stressed. Prerequisite: MUS 251, 252 or permission of the instructor. On demand.

MUS 350:	ART SONG LITERATURE II	2 s.h.
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Representative song repertoire of French, Italian, Slavic and Russian composers will be studied from historical and performance perspectives. The songs of Faure, Debussy, Ravel, Poulenc and Moussorgsky will be stressed. Prerequisite: MUS 251, 252 or permission of the instructor. On demand.

MUS 351	KEYBOARD LITERATURE	3 s h
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A comprehensive survey of keyboard music from the Renaissance to the present. Representative works from each period as selected for careful study and analysis, with emphasis on performance practices as well as formal and stylistic elements in the music. Includes the development of various keyboard instruments. Prerequisites: MUS 251, 252, or permission of instructor. Offered when faculty is available.

MUS 352	SYMPHONIC LITERATURE	3 s h
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An intensive study of orchestral music from the Baroque period to the present, using scores, live performances, and recordings with particular reference to performance practices and stylistic analysis. Prerequisites: MUS 251, 252 or permission of instructor. Offered when faculty is available.

MUS 353	CHAMBER MUSIC LITERATURE	3 s h
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An intensive study of music written for small ensembles from the Renaissance period to the present. Representative works from each period will be selected for careful investigation and analysis. Performance by members of the class or by faculty groups whenever possible. Prerequisites: MUS 251, 252, or permission of instructor. Offered when faculty is available.

MUS 355	OPERATIC LITERATURE	3 s h
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A comprehensive study of the entire field of operatic music from 1600 to the present, including 17th century Baroque opera, 18th century operatic reforms (Gluck and Mozart), opera in the 19th century (Verdi, Wagner, Strauss, and Puccini); 20th century trends in opera (Stravinsky, Berg, Britten, Menotti, etc.). Prerequisites: MUS 251, 252, or permission of instructor. Offered when faculty is available.

MUS 356	CHORAL LITERATURE	3 s h
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A comprehensive survey of choral music from the fifteenth century to the present with emphasis on masses, motets, and madrigals of the Renaissance period, oratorios, cantatas, and passions of the Baroque period, major choral works of Haydn, Mozart, Beethoven, Berlioz, Mendelssohn, Verdi, and Brahms, choral works of the twentieth century. Prerequisites: MUS 251, 252, or permission of the instructor. Offered when faculty is available.

MUS 357	BAND LITERATURE	3 s h
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A comprehensive survey of the available published and recorded literature for marching, military, and concert bands, symphonic and wind ensembles, and woodwind and brass chamber ensembles including transcriptions and arrangements, major publishers in the field, evaluation of various editions, and also a study of the principal trends of instrumental pedagogy, repertoire, and performance. Prerequisites: MUS 131, 134. Offered when faculty is available.

A comprehensive survey of modern piano teaching methods and available published teaching materials. Emphasis will be placed on the teaching of notation and the development of reading skills, the teaching of keyboard techniques through an understanding of the player's physical mechanism and the coordination of timing and touch; problems of fingering, pedaling, and memorization. Evaluation of materials for beginning students, easier teaching pieces by the great composers, anthologies, appropriate music for the intermediate student, leading to a more advanced technique and musicianship and to acquaintance with a wide range of composers and musical styles. Prerequisites: MUS 151, 152; or MUS 131 and permission of the instructor. Offered when faculty is available.

MUS 362	INSTRUMENTAL METHODS	2 s.h.
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Principles and procedures of organizing and conducting instrumental classes, bands, and orchestras in the public schools. Examination and use of texts, methods, and other materials. For music majors or by permission. Spring, annually

MUS 363	VOCAL METHODS	2 s.h.
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Principles and procedures of organizing and conducting vocal classes and choral ensembles in the public schools. Vocal techniques, tone production, proper vowel placement, proper focus on tone, diction, diaphragmatic breathing, and investigation of choral literature. For music majors or by permission. Fall, annually

MUS 364	COMPOSITION	3 s.h.
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A study of the nature of the musical idea and of the various possibilities of its subsequent development, including canonic or fugal treatment, motivic development, and variational procedures. A review of traditional structural plans and of contemporary formal and stylistic trends. Creative assignments emphasize the understanding of past and present compositional styles and techniques and the gradual development of a personal language. Prerequisites: MUS 135, 136, or permission of instructor. Offered when faculty is available.

MUS 365	CONDUCTING I	2 s.h.
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Designed to develop skilled baton techniques and clarity of gesture, effective rehearsal techniques, understanding of performance problems involving tonal balance, tempo, complex rhythmic situations, especially as related to intermediate and secondary school instrumental groups. Traditional and modern beat patterns; expressive gestures; cues and development of left hand, fermata, etc. Study of scores; problems of interpretation and rehearsal; performance preparation. For music majors or by permission. Fall, annually.

MUS 366	CONDUCTING II	2 s.h.
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Continuation of Conducting I with emphasis on mastery of technique; special emphasis on problems of vocal groups in junior and senior high school. Spring, annually

MUS 367	ORCHESTRATION	2 s.h.
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Basic principles of clear instrumental organization and tonal interest, related to the size of the instrumental group. Ranges and registers of the instruments; transposition, bowing and phrasing; phrasing for woodwind instruments; possibilities and limitations. Texture, timbre, dynamics, principles of tonal interest, contrast of timbre; instrumental motion, blend.

Structural values; design, overlapping of choirs. Prerequisites: Theory of Music I and II, Instrumental Techniques (minimum of one credit in each family of instruments.) Each semester.

MUS 368. BAND ARRANGING 3 s.h.

A study of instrumentation and scoring problems in marching, military, and concert bands, symphonic wind ensembles, and woodwind and brass chamber ensembles. Emphasis on score layout and notation, copying and multiple reproduction of parts, copyright implications, and knowledge of effective combination of instrumental sounds. Prerequisites: MUS 131 (or equivalent background) and consent of instructor. Offered when faculty is available.

MUS 369 MARCHING BAND TECHNIQUES AND MATERIALS 2 s.h.

A detailed study of the marching band including organization, music materials, care of instruments and uniforms, marching essentials, administration, and contemporary techniques. Prerequisites: MUS 135, 136 or permission of the instructor. On demand.

MUS 411 SPECIAL TOPICS IN MUSIC 3 s.h.

Topics of special interest in the field of music will be offered. Subject areas such as Orff -- Music for Children; Kodaly method; Mozart, the Man and his Music will be studied. Topics will be announced in advance. Offered occasionally

MUS 431-531 MUSIC IN EARLY CHILDHOOD 3 s.h.

The study of music activities for the early childhood years (ages 2-8) and methods for implementing these activities. Topics include a study of the development of the child voice; singing activities and criteria for song selection; music concept development through listening discrimination, expressive movement and creative instrumental activities; introductory music reading activities; an overview of current trends in music education. Prerequisites: MUS 131 or 133 and 134 or permission of instructor. Offered when faculty is available.

MUS 451. ADVANCED CONDUCTING 3 s.h.

A study of selected works by band, choral, and orchestral literature with particular reference of performance problems involving tonal balance, tempi, complex rhythmic and polymeric situations, vocal intonations, and diction. Conducting experience with band, choir and/or madrigal singers, and orchestra in rehearsal. Emphasis on a thorough understanding of the musical score and on effective rehearsal techniques. Prerequisites: MUS 356, 366, or permission of instructor. Offered when faculty is available.

MUS 452: WESTERN MUSIC AND ITS RELATIONSHIP TO FINE ARTS 3 s.h.

This course will consist of a comparative study of Western music in its stylistic relationship to the Fine Arts from the middle ages through the twentieth century. In addition it aims to show how the various arts responded to each other in the pattern of cultural history. No prerequisite courses are required, but a rudimentary background in music or art is desirable. Offered when faculty is available

MUS 453:	MELODIC IMPROVISATION	3 s.h.
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The course is designed to provide the advanced music student with fundamental concepts of improvisational techniques which may be applied to the development of skills for the invention and performance of improvised melodies. Prerequisites: MUS 135, 136, 235, 236, or equivalent theoretical background. Offered when faculty is available, alternate years.

MUS 455:	JAZZ COMPOSITION AND ARRANGING	2 s.h.
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A study of the basic techniques and methods of jazz composition and arranging. In addition to writing musical arrangements and original compositions for various jazz and popular idioms, participants are afforded the opportunity to conduct and perform their own works. Prerequisite: MUS 367 or by permission of the instructor. Alternate years.

ADVANCED INSTRUMENTAL TECHNIQUES AND PEDAGOGY

The sequence of courses listed below constitutes further study of the symphonic instruments. Specialized techniques which are employed by each instrumental family will be presented and mastered (strings, woodwinds, brasses, percussion.) Sufficient techniques will be developed by the student to enable him to introduce and teach these instruments successfully at the elementary or secondary level. The course will include methods, materials, manufacturers, suppliers, repair procedures, and procedures for private, homogeneous and heterogeneous group instruction; studio teaching and management; musicianship and creativity as part of the lesson; planning for various grade levels; history of teaching and study of leading methods.

MUS 461:	ADVANCED STRING TECHNIQUES AND PEDAGOGY	2 s.h.
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Prerequisites: MUS 281 or 282, or permission of instructor.

MUS 462:	ADVANCED WOODWIND TECHNIQUES AND PEDAGOGY	2 s.h.
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Prerequisites: MUS 282 or 283, or permission of instructor.

MUS 463:	ADVANCED BRASS TECHNIQUES AND PEDAGOGY	2 s.h.
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Prerequisites: MUS 284 or 285, or permission of instructor.

MUS 464:	ADVANCED PERCUSSION TECHNIQUES AND PEDAGOGY	2 s.h.
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Prerequisites: MUS 286 or permission of the instructor.

MUS 490:	INDEPENDENT STUDY	1-3 s.h.
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Opportunity to explore, in depth, an area of music of particular interest under the guidance of a faculty member. A scholarly paper or special project(s) will be required for credit and grade. Prerequisite: Permission of the instructor and department chairman.

NURSING

ASSOCIATE DEGREE

NURS 101: INTRODUCTION TO NURSING PROCESS: FUNDAMENTALS OF NURSING 8 s.h

This course introduces the student to Nursing, Man and Health, which are fundamental concepts to the Nursing Process. Emphasis is placed on man's basic needs according to his established priorities and the related interventions. Clinical experience is provided for the student to develop beginning competencies in those technical skills necessary to carry out the prescribed nursing care plan and medical regimen. Four lecture and twelve laboratory or clinical experience hours weekly. Fall, annually.

NURS 102: NURSING PROCESS I: PARENTAL AND CHILD HEALTH 4 s.h.

This course introduces the student to the family unit during the normal maternal cycle and development of the infant through the first year. Opportunities are provided for the student to work with families during the antepartal, intrapartal and postpartal health experience. Alterations in the normal health situation are also presented with a focus on adapting nursing care to meet the individual needs of the client and family. Two lectures and six clinical experience hours weekly. Prerequisites: BIOL 258, PSY 211, minimum grade of C in NURS 101. Spring, annually.

NURS 103: NURSING PROCESS II 4 s.h.

This course is an introduction to the nursing process as the basis for the practice of nursing. Opportunities are provided for the student to develop expertise in the following components of the nursing process: assessment, planning, implementation and evaluation. Each aspect of the nursing process is applied to the care of the client and family during activities of daily living. Two lecture and six clinical experience hours weekly. Prerequisites: BIOL 258, PSY 211, minimum grade of C in NURS 101. Spring, annually.

NURS 201: NURSING PROCESS III 8 s.h.

This course provides the student with an indepth knowledge of the nursing process. The nursing diagnosis is the basis for assisting the client and his family in establishing priorities for client needs relating to communication, oxygen exchange, oxygen transport, comfort, protective safety and nutrition; and mobilizing resources of the client and family in the decision-making process. Opportunities are provided for the student to develop competencies in technical and communication skills necessary to carry out the prescribed nursing care plan and medical regimen. Four lectures and twelve clinical experience hours weekly. Prerequisite: BIOL 258 and 259; PSY 211 and 260, minimum grade of C in NURS 101, 102, 103. Fall, annually.

Nursing Process IV is a logical extension of Nursing Process III and continues to increase the student's knowledge and understanding of the nursing process. The nursing diagnosis is basis for assisting the client and family in establishing health goals related to elimination, mobility structure, mobility function, regulatory safety and life crises. This course provides additional opportunities for the student to develop expertise in specific technical and communication skills while working as a member of the health team in acute care settings. Four lecture and twelve clinical experience hours weekly. Prerequisites: BIOL 258, and 259, PSY 211 and 260; minimum grade of C in NURS 101, 102, 103, and 201. Spring, annually.

This course is designed to introduce the student to the relevant aspects of change in the nursing profession, ranging from historical development to current issues and trends. Opportunities are provided for the student to participate in indepth studies of selected topics of interest. Special emphasis is placed on preparing the individual for the transition from the role of student to that of graduate nurse. Prerequisites: minimum grade of C in NURS 101, 102, 103, and 201. Spring, annually

BACHELOR DEGREE

This course introduces the student to General Systems Theory and how it relates to man, health, and nursing. Man is discussed in relation to his physical, social, and moral development. The health-illness continuum is the basis for study of man's level of well-being with additional focus on the health belief model and the health care delivery system. Nursing as a profession is discussed with emphasis on the historical perspectives, socioeconomic influences, and cultural differences which affect nursing practice. Nursing is viewed as a practice discipline based on the theoretical foundation. Nursing theory and nursing inquiry are emphasized as the basis for the practice of professional nursing. This course may be taken concurrently with Advanced Nursing Process, but it is required as a prerequisite to all clinical nursing courses. Fall and/or Spring, annually

This course provides a theoretical foundation for the practice of independent and interdependent nursing. The principles of leadership and management are introduced to the registered nurse and their application to professional nursing is emphasized. The major focus is on the concepts of change, group process, management, organization, and evaluation. This course may be taken before or concurrently with Advanced Nursing Process: Chronic Care, but it is required as a prerequisite to NURS 463 and 464. Spring or Summer annually

This course includes a detailed survey of the nursing process emphasizing the role of nursing diagnosis in professional nursing practice. Each aspect of the nursing process is related to the specific needs of the client requiring nursing intervention throughout his/her life processes. Opportunities are provided for the student to develop expertise in assessment, diagnosis, planning, implementation, and evaluation in a variety of settings. This course may

be taken concurrently with Man-Health-Nursing, but it is required as a prerequisite to all other clinical nursing courses. Four lecture and six clinical hours weekly. Fall, annually.

NURS 445: INQUIRY IN NURSING 2 s.h.

This course emphasizes the role of inquiry as it applies to nursing. It includes principles of research and scientific methods of inquiry. This course focuses on the ways that research influences nursing and nursing care. Current research will be critiqued for applicability to professional nursing practice in a variety of settings. Prerequisites: This course may be taken concurrently with Advanced Nursing Process: Acute Care, but it is required as a prerequisite to NURS 464. A course in statistics and a minimum grade of C in NURS 340, 357, 361, and 462 is required. Fall, annually.

NURS 462: ADVANCED NURSING PROCESS: CHRONIC CARE 6 s.h.

The conceptual focus of this course is the nursing process with emphasis on nursing diagnoses related to chronic alterations in health status. Professional nursing interventions are identified which facilitate the client and family to achieve a high level of well-being. Opportunities are provided for the student, as the client advocate, to apply the acquired theoretical knowledge to the care of clients of all ages in a variety of settings. Four lecture and six clinical hours weekly. Prerequisite: Minimum grade of C in NURS 340 and 361. Spring, annually.

NURS 463: ADVANCED NURSING PROCESS: ACUTE CARE 6 s.h.

The conceptual focus of this course is the nursing process with emphasis on nursing diagnoses related to acute alterations in health status. Professional nursing interventions are identified which facilitate the client and family to achieve a high level of well-being. Opportunities are provided for the student, as the client advocate, to apply the acquired theoretical knowledge to the care of clients of all ages in a variety of settings. Four lecture and six clinical hours weekly. Prerequisites: Minimum grade of C in NURS 340, 357, 361 and 462. Fall, annually.

NURS 464: ADVANCED NURSING PROCESS: HEALTH PROMOTION AND MAINTENANCE 6 s.h.

The conceptual focus of this course is the nursing process with emphasis on nursing diagnoses related to health promotion and maintenance. Professional nursing interventions are identified which are directed toward health promotion and maintenance. Opportunities are provided for the student, as the client advocate, to apply the acquired theoretical knowledge to the care of clients of all ages in a variety of settings. Four lecture and six clinical hours weekly. Prerequisites: Minimum grade of C in NURS 340, 357, 361, 445, 462, and 463. Spring, annually.

OTHER NURSING COURSES

NURS 299. SPECIAL TOPICS IN NURSING 1-3 credits variable

This course deals with topics of special interest for all registered nurses. It will focus on identified nursing subjects needed by the registered nurse to keep abreast of the changing trends in the profession; and provide them with a mechanism for updating their nursing knowledge and clinical competencies. This program will be offered summers and weekends during the academic year according to demand, and will be open to all graduate and registered nurses.

NURS 490. PHYSICAL ASSESSMENT 3 credits

This course is designed for registered nurses who desire knowledge and skill in assessing the health of a client through a health history and physical examination. The focus is on wellness with emphasis on early detection of changes in the health status of the client. Opportunities are provided for the student to develop expertise in obtaining a health history and performing a physical assessment in a detailed and systematic manner. This course will be offered according to demand and will be open to all registered nurses.

NURS 499. SPECIAL TOPICS IN NURSING 1-3 credits variable

This course deals with topics of special interest to professional nurses. It will focus on identified nursing subjects pertinent to the practice of professional nursing. This course will be offered summers and weekends during the academic year according to demand, and will be open to all professional registered nurses.

OFFICE MANAGEMENT

OFMT 131. COLLEGE TYPING 2 s.h.

Emphasis is placed on typing speed and accuracy. Production work includes manuscripts, rough drafts, centering, tabulation, and business letters and forms. Offered only on Venango Campus. Fall, annually.

OFMT 132. PRODUCTION TYPING 3 s.h.

Emphasis is upon speed and the production of mailable work from rough drafts and unarranged office problems. Prerequisite: College Typing or demonstrated equivalency. Offered only at Venango Campus. Spring, annually.

OFMT 135. COLLEGE SHORTHAND 3 s.h.

Dictation and practice in writing shorthand with emphasis on transcription speed and accuracy. Offered only at Venango Campus. Fall, annually.

OFMT 136. EXECUTIVE SHORTHAND 3 s.h.

Course designed to develop further speed in dictation and transcription of unfamiliar materials, using vocabulary from various business fields. Mailable transcripts emphasized. Prerequisite: College shorthand or demonstrated equivalency. Offered only on Venango Campus. Spring, annually.

3 s.h.

OFMT 230: OFFICE PROCEDURES 3 s.h.

OFMT 232: WORD PROCESSING 3 s.h.

PHILOSOPHY

3 s.h.

PHIL 112: SYMBOLIC LOGIC 3 s.h.

PHIL 211: INTRODUCTION TO PHILOSOPHY 3 s.h.

PHIL 212: ETHICS 3 s.h.

PHIL 215: MAJOR RELIGIOUS PHILOSOPHIES 3 s.h.

315

PHIL 250: SPECIAL TOPICS IN PHILOSOPHY

Offered occasionally.

PHIL 255: ANCIENT PHILOSOPHY 3 s.h.

Thinkers from the Ancient Greeks up to the Renaissance, with special attention to Plato, Aristotle, Augustine, and Aquinas. Spring 1987 and alternate years.

PHIL 256: MODERN PHILOSOPHY 3 s.h.

Thinkers from the Renaissance to the 19th century, with special attention to Descartes, Spinoza, Hume, Kant, and Hegel. Prerequisite: PHIL 255 is recommended. Spring 1987, and alternate years.

PHIL 258: CONTEMPORARY EUROPEAN PHILOSOPHY 3 s.h.

A study of European men and movements since 1850. Spring 1987, and alternate years.

PHIL 259: CONTEMPORARY ANGLO-AMERICAN PHILOSOPHY 3 s.h.

A study of Anglo-American men and environments since 1900. Spring, 1986, and alternate years

PHIL 350: PHILOSOPHY OF RELIGION 3 s.h.

Inquiry into the nature and validity of religious knowledge; the nature and existence of God; the nature of man and human destiny. Fall 1986, and alternate years.

PHIL 352: EPISTEMOLOGY 3 s.h.

Concepts and problems involved in the appraisal of certain types of human knowledge: perception, knowledge and belief, and truth. On demand.

PHIL 353: METAPHYSICS 3 s.h.

Inquiry into some of the fundamental philosophical concepts; being, substance, matter, mind, and God. Prerequisite: 6 credit hours in Philosophy. On demand.

PHIL 354: AESTHETICS 3 s.h.

Study of some of the aesthetic theories from Plato to the present; nature of the aesthetic experience; principles of criticism in literature and the arts. Fall, annually.

PHIL 355: HISTORY AND PHILOSOPHY OF SCIENCE 3 s.h.

Methods and procedures of reliable knowledge in the formal, natural, and social sciences. Prerequisite: PHIL 111 is recommended. Fall, annually.

PHIL 356: ORIENTAL PHILOSOPHY 3 s.h.

Significant contribution to philosophical and religious thought in the Near East, India, China, and Japan. Fall, 1986, and alternate years.

PHYSICAL SCIENCE

PHSC 111 BASIC PHYSICAL SCIENCE: CHEMISTRY* 3 s h

This course is intended for non-science majors and does not assume prior familiarity with chemistry. It does not count toward requirements for science majors, but can be applied to fulfill the general education math-science requirements for non-science majors.

Selected chemical principles are explored with the purpose of providing a background that will enable the student as a citizen to understand issues involving the interaction of science and society; brief experiments are often included. Students who prefer a more traditional chemistry course may elect either Chemistry 151 or 153 to fulfill their general education requirements. No prerequisite. Each semester.

*No student may take, for credit, a chemistry course at the 100 level after having successfully completed any chemistry course numbered 300 or above.

PHSC 112 BASIC PHYSICAL SCIENCE: PHYSICS
AND ASTRONOMY 3 s h

This course is intended for those students not majoring in the sciences or mathematics, and does not presume any prior familiarity with the subject. Science and Math majors will not receive credit for this course. Topics discussed are descriptive astronomy, cosmology, light and optics, force and motion, fundamental electrical phenomena and simple circuits, the special theory of relativity, and radioactivity and the atom. Brief the special experiments are integrated with the subject matter to emphasize the experimental basis of theory. The Planetarium is extensively used in conjunction with the section in astronomy. No prerequisite. Each semester, plus summer.

PHSC 211 SOUND, MUSIC AND ACOUSTICS 3 s h

This course is primarily designed for the student majoring in Music or in a discipline in which the Physics of Sound is of considerable importance. Topics include the basic physics of wave motion, superposition of waves, transverse and longitudinal waves, diffusion, diffraction and reflection, intensity, quality, and harmonic analysis of sound waves, reverberation and absorption, sound production by musical instruments and the voice, noise and harmony, factors in hearing, and the electronic recording and reproduction of sound. Spring, annually.

PHSC 457 INTRODUCTION TO ELECTRONICS FOR
AUDIO APPLICATIONS 3 s h

A survey of basic electricity and electronics. The course is intended to give the student an understanding of circuits, devices, measuring instruments, and measurement techniques used in typical audio applications. It is primarily intended for students in speech pathology and audiology, as an elective for both undergraduate and graduate students. Spring semester of alternate years.

PHYSICS

PH 251: GENERAL PHYSICS I 4 s.h.

This is a general course in mechanics, heat, and sound. Topics include the mechanics of solid, liquids, gases, thermometry, calorimetry, heat transferances, and the production and nature of sound waves including musical sound. Designed for non-physics majors. Includes laboratory. Prerequisite: Algebra. Each fall.

PH 252: GENERAL PHYSICS II 4 s.h.

This is a continuation of PH 251, a general course in electricity, magnetism, light, and atomic physics. Topics discussed include general concepts of magnetism, electrostatics, electrical circuits, alternating currents, optical instruments, reflection, refraction, interferences, spectra, and some basic concepts of atomic structure. Designed for non-physics majors. Includes laboratory. Prerequisites: Algebra. Each spring.

PH 258: INTRODUCTORY PHYSICS LECTURE I 4 s.h.

This is an introductory physics course designed for physics majors and pre-engineers. This course includes mechanics, heat, and sound. PH 268 must be taken concurrently by physics majors and prospective engineers. Prerequisite: MATH 270, which may be taken concurrently. Each fall.

PH 268: INTRODUCTORY PHYSICS LABORATORY I 1 s.h.

This laboratory complements PH 258, and should not be scheduled by students who are not enolled in PH 258. Experiments performed in this laboratory include free-fall, momentum and energy, and wave phenomena. Also included is the technique of writing the formal scientific report. Each fall.

PH 259: INTRODUCTORY PHYSICS LECTURE II 4 s.h.

A continuation of PH 258, an introductory course in physics designed for physics majors and pre-engineers. This course includes electricity, magnetism, light and atomic physics. PH 269 must be scheduled concurrently with PH 259 by physics majors and pre-engineers. Prerequisite: PH 258. Each spring.

PH 269: INTRODUCTORY PHYSICS LABORATORY II 1 s.h.

This laboratory complements PH 259, and should not be scheduled by students who are not also enrolled in PH 259. Experiments performed in this laboratory include current, potential, resistance and impedance measurements, use of the oscilloscope, image formation by lenses and mirrors, diffraction gratings, lasers, Geiger-Muller detectors, and the measurement of radioactive half-life. Each spring.

PH 350: MECHANICS -- STATISTICS 3 s.h.

An intermediate course in the mechanics of static objects. Topics include: equilibrium, virtual displacements, moments of inertia, friction, and flexible cables. Prerequisites: PH. 251 or 258, and MATH 271. Each fall.

PH 351: MECHANICS DYNAMICS 3 s.h.

This is an intermediate course in the mechanics of solids, liquids, and gases. Studies are made of rectilinear and curvilinear motion, work and energy, impulse and momentum, and oscillatory motion. Prerequisites: PH 252 or 259; MATH 350. Each spring

PH 352: ELECTRICITY AND MAGNETISM 3 s.h.

An intermediate course in electricity and magnetism. Vector analysis techniques are used for studying various areas of electrostatics and considerable emphasis is placed on A.C. circuit theory. Maxwell's equations for the electromagnetic field are derived. Prerequisites: PH 252 or 259; MATH 350. Fall 1986, Spring 1988, and each Spring semester thereafter.

PH 353: MODERN PHYSICS I 3 s.h.

An intermediate course on the electronic structure of the atom, including Bohr theory, Quantum Theory, and Vector Model. Optical and X-ray spectra, the Special Theory of Relativity, and the Uncertainty Principle are among the topics studied. Prerequisites: PH 252 or 259; MATH 270 with MATH 271 concurrently. Fall, 1986, 1988.

PH 354: OPTICS 3 s.h.

This is an intermediate course in geometrical and physical optics. Topics include thin lenses, thick lenses, interference, diffraction, polarization, color theory, and the study of spectra. Prerequisites: PH 252 or 259; MATH 271, with MATH 272 concurrently. Spring, 1988, 1990.

PH 355: MODERN PHYSICS II 3 s.h.

A continuation of Modern Physics I, including structure and spectra of molecules, band theory of solids, structure of the nucleus, radioactive decay, nuclear reactions, radiation detectors, and elementary particles. Prerequisites: PH 353, MATH 272. Offered spring, 1987, 1989, etc.

PH 356: THERMODYNAMICS 3 s.h.

This is an intermediate course in heat. The basic concepts and principles are developed more intensively in the study of properties of gases and in thermodynamics. Some of the specific topics studied are temperature measurements, thermal expansion, specific heat, thermal conductivity of solids and liquids, thermal properties of gases, change in phase, and heat engines. Prerequisites: PH 252 or 259; MATH 272. Fall 1987, Spring 1987.

PH 357: INTRODUCTION TO THE THEORY OF THE SOLID STATE 3 s.h.

The course will include the study of two-and three-dimensional space groups. Miller indices, crystalline structure of various types, X-ray diffraction, lattice vibrations, Einstein and Debye theories of heat capacity of conduction electrons. Fermi-Dirac distribution law, and the transport properties of metal. Prerequisite: PH 353. Spring, 1987, 1989, etc.

This course complements PH 351, 352, 353, 354, and 355, offering a wide range of intermediate-to advanced-level experiments in Mechanics, Electricity, Optics, Atomic and Nuclear Physics. In addition to laboratory work the student will investigate background and related materials in the library journal collections and obtain practice in journalism-style report writing. The laboratory is highly individualized, each student moving at his own pace and working in those areas of Physics appropriate to his academic experience. Prerequisites: Junior-senior standing, and at least two of the following courses: PH 351, 352, 353, 354, 355 must be completed or coregistered. This course may be taken twice, with different experimental content, for credit. Each fall.

PH 453:

INDEPENDENT STUDY IN PHYSICAL MEASUREMENTS

2 to 6 s.h.

This is a course in the theory and use of precision measuring devices covering most of the areas of Physics. Experiments are developed to fit background and needs of the individual student, exploiting the equipment from all of the various special laboratories of the Physics Department. The student will work from three to six hours each week on experimental projects, according to the credit he elects upon consultation with his advisor.

PH 455:

ANALOG ELECTRONICS

3 s.h.

An introduction to network analysis, A.C. circuits and solid state devices. Topics include discrete devices, power supplies, amplifiers, oscillators, and operational amplifiers. Particular attention is given to the application of circuits to scientific instruments. Prerequisites: PH 259/269 or PH 252, and a course in Integral Calculus. Fall, 1987, 1989, etc.

PH 456:

DIGITAL ELECTRONICS

3 s.h.

This course includes an introduction to gate circuits, Boolean algebra in the minimization of gate circuits, flip-flops, counters, timers, the design, operation, and programming of microcomputers, D/A and A/D conversion, and the interfacing of microcomputers to external devices. Prerequisites: PH 259 and 269, or PH 252, or permission of the instructor. Spring 1987, Fall 1988, and Fall semesters of alternate years thereafter.

PH 457:

DEMONSTRATION IN PHYSICS

3 s.h.

This course is designed for the secondary education major in physics. Preparation and performance of classroom demonstrations for use in secondary schools are stressed. Prerequisites: PH 252 or 259. On demand.

PH 460:

INTRODUCTION TO MATHEMATICAL PHYSICS

3 s.h.

This course uses the techniques of vector calculus and differential equations to treat problems in mechanics, electricity and other areas of physics at a level intended to prepare the physics major for graduate level work. Analog and digital computer techniques are discussed and applied to a variety of physical problems. Prerequisites: PH 258, 259, Mathematics through MATH 350. Fall, 1988, 1990, etc.

PH 461:

SEMINAR

1 s.h.

This physics seminar consists of mastering the techniques of literature-survey and library research on specific topics, together with the preparation and presentation of formal reports of a research nature. Prerequisites: senior standing, science major. Spring, annually.

POLITICAL SCIENCE

PS 210: INTRODUCTION TO POLITICAL SCIENCE 3 s.h.

This course introduces students to the study of politics by using various approaches, by studying different political ideologies, and by examining different structures of government. Each semester.

PS 211: AMERICAN GOVERNMENT 3 s.h.

The study of the general principles of the American system of constitutional government; special emphasis is placed upon the organization and functions of the national government -- legislative, executive, and judicial. The rights and duties of citizenship, the electorate, political parties, civil rights, and the growing regulatory function of government are carefully treated. Each semester.

PS 250: SPECIAL TOPICS IN POLITICAL SCIENCE

Offered occasionally.

PS 300: STRATEGIC CONCEPTS AND INTERNATIONAL SECURITY 3 s.h.

Strategic concepts in the 20th century as they evolved from World War I to World War II to the nuclear age. Emphasis will be placed on global nuclear strategy and regional strategic thrusts. Every other year.

PS 351: STATE AND LOCAL GOVERNMENT 3 s.h.

Deals mainly with a detailed study of how our state and local governments function. Emphasis is placed on Pennsylvania government. Independent study through outside projects is one of the requirements of this course. Every other year.

PS 352: INTERNATIONAL POLITICS 3 s.h.

This course presents a framework for analyzing the behavior states, the basic factors which motivate and affect international policies, and the techniques of resolving international conflicts. Every other year.

PS 353: INTERNATIONAL ORGANIZATION 3 s.h.

This course deals with international organizations, both historically and analytically. Emphasis is placed on configurations that induce state behaviors leading to resolution of international conflicts and to the solution of common problems. Every third year.

PS 354: CONSTITUTIONAL LAW OF THE UNITED STATES 3 s.h.

A study of the development of the Constitution through the interpretations of the Supreme Court. This includes a study of the separation of governmental powers, political and judicial processes, federalism as a legal device, and the relationship of liberty and authority to the individual living under government. Prerequisite: PS 211. Spring, annually.

PS 355:	POLITICAL PARTIES AND ELECTIONS	3 s.h.
A survey course with emphasis on the study of the electorate, pressure groups, and public opinion, nature and history of political parties, party organization, methods of nominations, and elections. Special attention is given to the place of political parties and elections as instruments of democracy and their place in the framework of Pennsylvania's government. Fall, annually.		
PS 365:	ANCIENT AND MEDIEVAL POLITICAL THOUGHT	3 s.h.
The development of political theory from Plato to Machiavelli. Every year.		
PS 366:	MODERN POLITICAL THOUGHT	3 s.h.
Political thought from the Reformation to the twentieth century. Every year.		
PS 375:	PUBLIC ADMINISTRATION	3 s.h.
An introduction to the study of public administration with emphasis on its foundation in the American political process. Every other year.		
PS 390:	COMPARATIVE FOREIGN POLICIES	3 s.h.
Concepts for analysis of internal and external factors in making foreign policies. Emphasis will be placed on the foreign policy of the United States, the Soviet Union, the United Kingdom, Japan, West Germany, France, and China. No prerequisite. Every other year.		
PS 451:	COMPARATIVE GOVERNMENT	3 s.h.
A consideration of the problem inherent in comparing political systems with emphasis on the British, French, and Soviet political systems. Every year.		
PS 458:	ENGLISH CONSTITUTIONAL HISTORY	3 s.h.
A consideration of constitutional government in England from the beginning of English history to the present. The study of governmental powers, political and judicial processes, and the relationship of liberty and authority to the individual living under the government is included. Every other year.		

PSYCHOLOGY

PSY 211: GENERAL PSYCHOLOGY 3 s.h

Study is made of the general subject matter of psychology, its methods and procedures and its major findings. Areas of particular stress include genetic inheritance, development, learning, emotions and motivation, sensation and perception, personality and abnormal adjustment, and the social behaviors of groups. Each semester.

NOTE: General Psychology is the prerequisite for all psychology courses except as indicated.

PSY 220: HUMAN SEXUALITY 3 s.h.

A basic course in self-understanding. The student is given the opportunity to be informed on (a) the physical, psychological, ethical, social, and legal components of sexuality as they relate to attitudes toward self and others; (b) the roles involved in being male and female; (c) relationships as they are affected by attitudes; and (d) the responsibilities of such relationships. Each semester.

PSY 225: PSYCHOLOGY OF ADJUSTMENT 3 s.h.

This course emphasizes the psychodynamics of "normal" social adjustment and enables each student to explore self-identity, social relationships, and interactions with environment. Problems of personality, mechanisms and adjustment, the origin and resolution of conflicts, and the role of emotions in behavior are studied. No prerequisite. Each semester.

PSY/MGMT 228: HUMAN BEHAVIOR IN ORGANIZATIONS 3 s.h.

A survey of the application of psychological theory, techniques, and research to organizations. The psychological principles of selection, training, attitudes, motivation, job satisfaction, job evaluation, and performance are analyzed. No prerequisite. Offered only at Venango Campus.

PSY 230: INTRODUCTORY STATISTICS FOR THE BEHAVIOR SCIENCES 3 s.h.

Basic descriptive and inferential statistical techniques (frequency distributions, measures of variability and central tendency, correlation, regression, z, t and F tests) will be covered. Special attention will be given to the use of those techniques in dealing with data in the behavioral sciences and their importance in the research endeavor. No prerequisite. Each semester.

PSY 251: EXPERIMENTAL PSYCHOLOGY 3 s.h.

This course is designed to familiarize students with the methods used by psychologists to systematically collect information about the behavior of people and lower animals. Experiments are conducted during laboratory meetings and particular attention is given to the appropriate style of writing research reports. PSY 230 is a prerequisite; concurrent registration permitted only with consent of the instructor. Each semester.

PSY 260: DEVELOPMENTAL PSYCHOLOGY 3 s.h.

Study of the development of human behavior from conception through infancy, childhood, adolescence, adulthood, and old age. Special attention is given to the physical, emotional, intellectual, and social aspects of development. No prerequisite. Each semester.

PSY 321: PSYCHOLOGY OF ADOLESCENCE 3 s.h.

The physical, intellectual, psychosocial, and cultural bases of adolescent behavior are studied as these relate to peers, home, and community. Annually.

PSY 331: CHILD PSYCHOLOGY 3 s.h.

Study of the child from birth through pre-adolescence. Topics include the physical, social, emotional, and intellectual development of children, the relationship of heredity to environment, personality development, attitudes toward self and others. Annually.

PSY 340: PSYCHOLOGY OF WOMEN 3 s.h.

Empirical and theoretical concepts from all areas of psychology provide a base for the study of the changing role of women and the psychological effects upon the individual. Topics include sex-role development consequences, women's alternative roles, women in relation to their bodies, a social-psychological analysis of the women's movement, and mental health considerations. Fall, annually.

PSY 350: INDUSTRIAL PSYCHOLOGY 3 s.h.

Close scrutiny is given to the complex process by which personnel are evaluated and selected for positions in business and industrial organizations and the psychological variables which affect their mental and physical performance. Among these are the effects of stress and conflict on the worker, personality differences, training procedures, intelligence and motivation, and special problems. No prerequisite. Annually.

PSY 354: ABNORMAL PSYCHOLOGY 3 s.h.

A survey is made of the principal forms of behavior disorders with emphasis on their etiology, diagnosis, prognosis and treatment. Annually.

PSY 355: SOCIAL PSYCHOLOGY 3 s.h.

Study is made of the interpersonal relations of humans and how these are affected by society's norms and values. Annually.

PSY 357: INTRODUCTION TO PSYCHOLOGICAL TESTING 3 s.h.

Covers the nature and use of tests including intelligence, personality, aptitude, interests, and achievement. The student will also prepare behavior objectives, construct tests of items which sample the objectives, administer the tests, and analyze the results. Knowledge of first-year high school algebra is assumed. Annually.

PSY 360: SPECIAL TOPICS 3 s.h.

This course focuses on a single, broad, contemporary issue of current interest in psychology and related fields of study. Course content varies from semester to semester. May be taken three times for credit. As required by demand.

PSY 393: INDEPENDENT STUDY 1-3 s.h.

An opportunity for the student to explore an area of special interest in depth for variable credit under the supervision of a member of the department and with approval of the chairperson. Open to juniors and seniors.

PSY 452: PHYSIOLOGICAL PSYCHOLOGY 3 s.h.

This course is designed to survey a variety of topics of primary interest and importance to psychology from a physiological viewpoint. The basic goal of this approach is to discover the physical and biological mechanisms that underlie behavior. Topics to be covered include: drugs and behavior, perception, emotions and motivation, sleep, learning and memory, aggression, psychopathology, etc. A variety of laboratory methods and techniques are introduced via demonstrations. Open to juniors and seniors. Annually.

PSY 454: PERSONALITY 3 s.h.

Systematic study is made of the development, dynamics, and structure of the self-system together with a critical comparison of the major theories of personality. Annually.

PSY 455: LEARNING AND MOTIVATION 3 s.h.

A critical survey is made of the outstanding attempts to understand and explain the nature of the learning process. Emphasis is placed on a comparison of current theories and their implications when applied to forms of learning and motivation from the simple to the complex. Annually.

PSY 456: HISTORY AND SYSTEMS OF PSYCHOLOGY 3 s.h.

The issues of concern to modern psychologists are frequently those which have been of concern to humans since the dawn of recorded history. In this course we will look at the foundations of psychological thought and its development from Greek civilization, through the reformation and to a period of quasi-maturity in the formal system of the late 19th and early 20th centuries. Annually.

PSY 457: PSYCHOLOGY AND ADULT DEVELOPMENT AND AGING 3 s.h.

Study of the development of human adult behavior from early adulthood through the aging process. Special attention is given to the physical, emotional, intellectual, and social aspects of adult development and aging. Annually.

PSY 458: SENSATION AND PERCEPTION 3 s.h.

The sensory-perceptual processes will be studied with a view to understanding their structure properties and their role in the psychological functioning of man. Particular emphasis will be placed on vision and hearing and the differences within and between human individuals. Every other year.

PSY 459 COMPARATIVE PSYCHOLOGY 3 s.h.

A study of the underlying genetics and biological controlling mechanisms of animal and human behavior. Special emphasis given to the role of evolution and natural selection in the development of behavior adaptations, and to behavioral comparisons between species. Every other year

PSY 460: BEHAVIOR THERAPY 3 s.h.

This course will introduce students to the nature of behavior therapy, its conceptual and empirical foundations and its clinical applications to a variety of symptoms and in a variety of settings. While not designed to train behavior therapists, it is intended to sensitize students to the responsibilities of human behavior to environmental change. Prerequisite: PSY 455. Annually.

PSY 464: INTRODUCTION TO COUNSELING AND
PSYCHOTHERAPY 3 s.h.

Following an experiential-cognitive format, students will learn the basic helping skills of accurate empathy, nonjudgmental permissiveness and genuineness as applied both to dyadic and group contexts. The course also surveys major approaches to therapy. Prerequisites: PSY 354. Each semester.

PSY 465: RESEARCH SEMINAR 3 s.h.

This course is designed to give students the opportunity to conduct research under the direction of an individual faculty member in the department. Normally the research will be of an experimental nature, however, other projects will also be considered. The work will culminate in a paper of distinguished quality. Prerequisites: PSY 251 and permission of instructor. Annually.

PSY 470 SENIOR SEMINAR IN PSYCHOLOGY 3 s.h.

An advanced course designed to bring together information from a wide range of psychological sub-disciplines and to provide the student with an opportunity to see how the various aspects of psychology interrelate. Emphasis is placed on analysis of controversial issues, with the intent of developing both the student's expertise in psychology and ability to dissect theoretical controversy. Annually.

PSY 499 SUPERVISED FIELD EXPERIENCE 3 s.h.

Under supervision students are placed in such field settings as mental health clinics, family services, etc., where they acquire observational experience with the application of helping skills in the human services. May be repeated once for credit and requires a 10-hour time commitment per week. Prerequisites: Permission of instructor, junior standing, and PSY 464. Open to any student majoring in a human service health related area. Each semester.

NOTE: PSY 211, General Psychology, is a prerequisite for all Psychology courses except as indicated.

REAL ESTATE

Real Estate Fundamentals and Real Estate Practice are required by the Pennsylvania Real Estate Commission to prepare for the real estate salesperson licensure examination. All of the real estate courses listed below can be used to meet the educational requirements of the real estate brokerage licensure examination.

RE 370: REAL ESTATE FUNDAMENTALS 3 s.h.

This course is designed as an introduction to the broad area of real estate. It seeks to lay a foundation of important principles from which a study in depth may be launched. Each semester.

RE 371: REAL ESTATE PRACTICE 3 s.h.

This course examines the role of the agent in the real estate market, the legal and ethical aspects of brokerage, the real estate marketing process, and specialized fields in the real estate business. Prerequisite: Consent of the instructor. Each semester.

RE 372: REAL ESTATE LAW 3 s.h.

This course covers the legal relationships and legal instruments involved in listing and selling real property. Prerequisite: RE 370 or consent of instructor. Each semester.

RE 373: REAL ESTATE FINANCE 3 s.h.

This course is a study of the methods of financing the purchase of real estate, with a brief look at real estate as investment opportunities. Prerequisite: RE 370 or consent of the instructor. Fall, annually.

RE 374: BROKERAGE OF REAL ESTATE 3 s.h.

Brokerage of Real Estate deals with the relationship between the broker, his client, and the customer; the broker and his salesman; and the broker and the public at large. The realtor and his ethics are stressed. Prerequisite: RE 370 or the consent of the instructor. Spring, annually.

RE 470: APPRAISAL OF REAL ESTATE 3 s.h.

This course is designed to introduce the principles of real estate appraisal to the students. It includes all methods used to appraise real property, and covers both residential and commercial real estate. It is designed to be useful to anyone considering a career in real estate sales and/or real estate appraisal work. The student will have the opportunity to participate in actual real estate appraisals. Prerequisite: RE 370 or the consent of the instructor. Fall, annually.

RE 471: REAL ESTATE INVESTMENT ANALYSIS 3 s.h.

This course provides the background necessary to evaluate alternative income-producing real estate investments. Real estate as an investment media will be analyzed in terms of financial and non-financial considerations. The rate of return and inflation-hedge characteristics of real estate investing will be considered in light of risk, illiquidity, and federal tax consequences. Prerequisite: RE 370 and 371, or FIN 370 or consent of the instructor. Annually.

RUSSIAN

In addition to the courses listed below, students of Russian have an opportunity to study for a summer, a term, or an entire academic year in the USSR.

RUSS 101: SPECIAL TOPICS: THE EUROPEAN MIND 3 s.h.

Historical and contemporary developments on the European intellectual scene will be covered by experts on individual countries with regard to their relevance for the present American student generation.

The special subject of each semester offering will be announced in pre-registration. Open to all students of the university without prerequisites and may be taken up to three times for credit provided that different topics are offered. Three-year cycle.

RUSS 109: RUSSIAN LITERATURE IN TRANSLATION 3 s.h.

Synoptic studies of major works by Russian writers of the 19th and 20th century with particular emphasis on philosophical ideas, literary methods, and characters which have had a considerable influence on comparative studies, with class discussion, reading, and lectures. No prerequisites. Conducted in English. Three-year cycle.

RUSS 151: RUSSIAN I (ELEMENTARY I) 3 s.h.

Essentials of grammar with emphasis on aural comprehension and oral expression. Fall, annually.

RUSS 152: RUSSIAN II (ELEMENTARY II) 3 s.h.

Continuation of RUSS 151, with increasing emphasis on graded reading materials. Prerequisite: RUSS 151 or equivalent. Spring, annually.

RUSS 225: INTRODUCTION TO RUSSIAN PHONETICS
AND PRONUNCIATION 3 s.h.

An introduction to the Russian phonetic system, including the study of phonemes, intonation, stress and rhythm. Intensive aural/oral training through phonetic dictation with transcription in the International Phonetic Alphabet and practice in diction. Introduction to corrective phonetics. Recommended for majors. Prerequisite: RUSS 152 or equivalent. Three-year cycle

RUSS 251: RUSSIAN III (INTERMEDIATE I) 3 s.h.

Systematic review of basic grammar; graded readings; conversation; translation; and composition on selected topics. Prerequisite: RUSS 152 or two years of high school study and/or satisfactory placement test scores. Fall, annually.

RUSS 252: RUSSIAN IV (INTERMEDIATE II) 3 s.h.

Intensive reading of selected works; outside reading, with oral and/or written reports. Prerequisite: RUSS 251 or a satisfactory placement test score. Spring, annually.

3 s.h.

RUSS 255:	RUSSIAN CIVILIZATION I	3 s h
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RUSS 256:	RUSSIAN CIVILIZATION II	3 s.h.
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RUSS 265: INTERMEDIATE CONVERSATION 3 s.h.

RUSS 351: ADVANCED GRAMMAR AND COMPOSITION 3 s.h.

RUSS 352: INTRODUCTION TO RUSSIAN LITERATURE 3 s.h.

RUSS 353: THE RUSSIAN DRAMA 3 s.h.

RUSS 354: THE RUSSIAN NOVEL 3 s.h.

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RUSS 355: READINGS IN SOVIET AND RUSSIAN LITERATURE 3 s.h.

A survey of Russian literature since the Revolution, from 1917 to the present. New political mood, changes, and literature in the 60's and 70's characterized by human stories as opposed to socialist realism. Three-year cycle.

RUSS 361: DOSTOEVSKY 3 s.h.

Synoptic studies of the life and works of Dostoevsky, with emphasis on his great novels: *Crime and Punishment*, *The Idiot*, *The Possessed*, and *The Brothers Karamazov*. Comparative and contrastive analysis of ideas in major works. Three-year cycle.

RUSS 451: SUPERVISED READINGS IN RUSSIAN 3 s.h.

This course is devoted to selected readings determined in relation to the needs and interests of individual students.

SCIENCE EDUCATION

SCED 322: TEACHING OF ELEMENTARY SCIENCE 3 s.h.

Methods of presenting science in the elementary school. Experiences are provided in learning process, scope and sequence of science concepts, methods of investigation, problem solving, laboratory skills, scientific attitudes, newer curricula, reading materials, observing and working with elementary school children, developing, teaching and evaluating lessons. 2 hour lecture and 2 hours laboratory weekly. Each semester.

SCED 331: BIOLOGICAL INVESTIGATIONS 3 s.h.

This course is designed to provide the prospective teacher with a more adequate background in biology and laboratory experiences applicable to science teaching. The course has three aspects (1) identification and natural history of local flora and fauna, (2) application of basic biological principles, and (3) development of skills necessary to carry out biological investigations. On demand.

SCED 456: ELECTRONICS FOR THE HIGH SCHOOL
SCIENCE TEACHER 4 s.h.

This course is intended for the science teacher who has had little or no previous course work in physics or mathematics. The subjects covered include the fundamental law of electricity and magnetism, alternating current theory, and the theory and practical application of such devices as ammeters, voltmeters, oscilloscopes, vacuum tubes, transistors, power suppliers, amplifiers, and oscillators. Examples of some of these devices will be built in the laboratory, and general procedures for trouble-shooting faulty equipment will be illustrated. Summer only, on demand.

SCED 460: SCIENCE CURRICULA IN THE MIDDLE AND JUNIOR HIGH SCHOOL 3 s.h.

A course designed to acquaint students with modern science curricula for the junior high/middle school levels. Recent developments in curricula objectives, science content, teaching strategies, and laboratory activities are stressed. Individual projects included Spring, odd-numbered years.

SCED 463: ASTRONOMY: OBSERVATION AND FIELD STUDIES 3 s.h.

This is a course in the experimental tools and methods useful in astronomy. It is not an encyclopedia survey of astronomy, but concentrates on mastery of important techniques and concepts by a "do-it-yourself" process. It complements courses in descriptive astronomy (ES 353 and SCED 550) rather than duplicating them, serving much the same purpose as a laboratory in astronomy. The student will build simple telescopes, spectroscopes, and other astronomical instruments. Summer only.

SCED 466: FIELD PHOTOGRAPHY 3 s.h.

This course is designed to teach the student how to use a modern camera and accessories to photograph subjects in the field. Techniques of close-up, telephoto and wide-angle photography as well as film development, lighting, use of filters and composition will be included. In addition, the student will have a chance to learn and practice techniques for photographing such objects as small animals, birds, flowers, large animals, and other field subjects. Camera and film to be provided by students. Summers, on demand.

SCED 485: PLANETARIUM OPERATION AND MANAGEMENT 3 s.h.

An introduction to the techniques of operation and maintenance of planetarium projects. Opportunities are provided for writing and presenting programs at various levels of instruction. The use of auxilliary projectors, the production of audio-visual materials, multi-media displays, and live versus programmed presentations are emphasized. Prerequisite: ES 353 or consent of instructor. On demand.

SOCIOLOGY AND SOCIAL WORK

SOC 211: PRINCIPLES OF SOCIOLOGY 3 s.h.

This is the basic course in sociology dealing with the interaction arising from the association of human beings. Emphasis is placed upon social heritage; the meaning and functions of culture; the characteristics of major social institutions. Each semester.

SOC 250: SPECIAL TOPICS IN SOCIOLOGY 3 s.h.

Offered occasionally.

SOC 300: INTRODUCTION TO SOCIOLOGICAL RESEARCH 3 s.h.

An introduction to the social research process and methods of sociology, including the logic and methods of science; fundamental research methodologies; designs and strategies; basic techniques of data collection, organization, analysis and presentation. Prerequisites: SOC 211; 3 hours in statistics, or permission of the instructor.

History of pioneers in the field and their conceptualization of Sociology as a science; focuses on the works of particular sociologists whose concepts not only have historical interest but also great impact on the subject matter and methods of contemporary society. Comte, Durkheim, Marx, and Weber to be considered in greater depth. Prerequisite: SOC 211 or permission of the instructor.

SOC 321: SOCIOLOGY OF WORK 3 s.h.

A study of occupational and organizational work settings, social meanings, types and social functions of work. Unemployment and its social causes and consequences, will also be analyzed. Selected work place reforms and proposed structural changes of work will be studied. Prerequisite: SOC 211 or ANTH 211. Once annually.

SOC 340: THE SOCIOLOGY OF CONFLICT RESOLUTION 3 s.h.

Analysis of social conflict and an introduction to the dynamics of conflict resolution. Emphasis is on examining theories and methods of active nonviolent conflict and resolutions in small group and large organizational settings. Topics include violence, types of noncooperation, categories of intervention in conflict situations, and civilian-based defense. Cross-cultural data will be used extensively. Prerequisite: SOC 211. Once, annually.

SOC 350: THE AMERICAN RELIGIOUS SCENE 3 s.h.

Analysis of the relationship between religious and society. Topics include the role of religion in society, religion as a social institution, and social factors in religious behavior. Special attention to religion in the United States, considering the diverse forms, together with modern religious cults. Prerequisites: SOC 211 or permission of the instructor.

SOC 351: CONTEMPORARY SOCIAL PROBLEMS 3 s.h.

This course deals with problems that affect the integration and functioning of society as a whole. Such topics are economic concentration, physical violence, injustice and nuclear war as well as selected solutions to these social problems. Prerequisite: SOC 211 or permission of the instructor. Once annually.

SOC 352: THE FAMILY 3 s.h.

This course deals with the development of the family and the home in its historical, economic, and legal aspects. The various factors influencing the organization, disorganization and reorganization of the family as well as the modern trends in the basic institution are considered. Prerequisite: SOC 211 or permission of the instructor.

SOC 361: SOCIOLOGY OF DEVIANT BEHAVIOR 3 s.h.

The course examines deviance as a constant social phenomenon, as well as forms of behavior which may be classified as deviant, especially in terms of American society. Emphasis will be given not only to the nature and forms of deviance, but also the reactions and orientations to deviance on the part of the deviant and of the larger society. Prerequisite: SOC 211 or permission of the instructor.

SOC 362: RACIAL AND ETHNIC MINORITY PROBLEMS 3 s.h.

Background of racial and ethnic minority group relations. Contemporary aspects of inter-ethnic and inter-racial group problems. Proposals for alleviating and resolving problems and their implications. Prerequisite: SOC 211 or permission of the instructor. Once annually.

SOC 363: URBAN SOCIOLOGY 3 s.h.

Study of urban communities, their composition, structure, and development in relation to other types of communities. The growth of mass urban society, population shifts and trends, and their implications for basic social institutions. Special emphasis upon contemporary urban problems and proposals of urban planners and community developers to meet them. Prerequisite: SOC 211 or permission of the instructor.

SOC 370: FUNDAMENTALS OF POPULATION STUDY 3 s.h.

A study of factors influencing the quality and quantity, distribution, growth, and movement of populations. An examination of population trends and the implication for social problems and social policy. Prerequisite: SOC 211 or permission of the instructor.

SOC 380: COMMUNITY INSTITUTIONS 3 s.h.

Analysis and study of the nature of community from a sociological perspective focusing on the structure, functions, and interrelationships of its institutions and theories of community organization and development.

SOC 395: SOCIAL CHANGE 3 s.h.

Analysis of social change processes through study of major theories of social change and recent investigations in the general area of social change. Examination of major social forces and movements shaping contemporary patterns of social change, e.g., industrialization, rationalization, urbanization. Studies of the impact of inventions, discoveries, revolutions, reform movements and attempts to direct the course of change through various types of planning and development programs. Prerequisite: SOC 211 or permission of the instructor.

SOC 400: INDEPENDENT STUDY IN SOCIOLOGY

Concentrated exploration and study of a problem or area of sociology not covered by existing courses and in accord with the student's interest and needs and under the direction of department faculty member. Prior to enrolling in the course, students are required to submit a written proposal outlining their plan of study for the instructor with whom they will be working. Enrollment limited to juniors and seniors with consent of the instructor. Maximum number of credits in SOC 400 is limited to 9.

SOC 499: SUPERVISED FIELD STUDY 3 s.h.

With the approval and under the supervision of a member of the faculty in sociology, students are placed in field-work settings, e.g., child welfare agencies, offices of aging, divisions of the criminal justice system, community development agencies, etc., where they will observe and work with persons responsible for carrying out a range of specific human services. Requires a ten-hour commitment each week. Prerequisites: permission of instructor, junior standing, and six hours in sociology.

SW 311: PRINCIPLES OF SOCIAL WORK 3 s.h.

An overview of social work as a profession with an introduction to social welfare agencies, institutions and delivery systems. Students will examine a basic set of concepts, principles and elements of practice. Prerequisites: SOC 211 and either SOC 351 or 363 or consent of the instructor. Fall, annually.

SW 312: SOCIAL WORK WITH GROUPS 3 s.h.

A study of the practice of groupwork, one of the core methods of social work, with emphasis on strategies used in various social work settings. Spring, annually.

SPANISH

In addition to the courses listed below, students of Spanish have an opportunity to study for a summer, a term, or an entire academic year in Spain and/or Mexico.

SPAN 101: SPECIAL TOPICS: THE EUROPEAN MIND 3 s.h.

Historical and contemporary developments to the European intellectual scene will be covered by experts on individual countries with regard to their relevance for the present American student generation.

The special subject of each semester offering will be announced in pre-registration. Open to all students of the university without prerequisites and may be taken up to three times for credit provided that different topics are offered. Two-year cycle.

SPAN 109: SPANISH LITERATURE IN TRANSLATION 3 s.h.

A study of representative Spanish literary works, with particular emphasis on the characters and ideas which have influenced both Spanish and other literatures. The course is conducted in English; no knowledge of Spanish required; no prerequisites. Two-year cycle.

SPAN 151: SPANISH I (ELEMENTARY I) 3 s.h.

Essentials of grammar with emphasis on aural comprehensions and oral expression. Each semester.

SPAN 152: SPANISH II (ELEMENTARY II) 3 s.h.

Continuation of SPAN 151, with increasing emphasis on graded reading material. Prerequisites: SPAN 151 or equivalent. Each semester.

SPAN 153: ELEMENTARY SPANISH CONVERSATION 3 s.h.

Conversational practice, with extensive oral drill or grammatical patterns. Designed for those students who have met the prerequisites for SPAN 251 but are lacking in aural-oral proficiency. May be taken concurrently with SPAN 251. Spring, annually.

SPAN 225: INTRODUCTION TO SPANISH PHONETICS
AND PRONUNCIATION 3 s.h.

An introduction to the Spanish phonetic system including the study of phonemes, intonation, stress and rhythm. Intensive aural/oral training through phonetic dictation with transcription in the International Phonetic Alphabet and practice in diction. Introduction to corrective phonetics. Recommended for majors. Prerequisite: SPAN 152 or equivalent. Three-year cycle.

SPAN 251: SPANISH III (INTERMEDIATE I) 3 s.h.

Systematic review of basic grammar; graded readings, conversation, translation, and composition of selected topics. Prerequisite: SPAN 152 or two years of high school study and/or a satisfactory placement test score. Fall, annually.

SPAN 252: SPANISH IV (INTERMEDIATE II) 3 s.h.

Intensive reading of selected works; outside reading, with oral and/or written reports. Prerequisite: SPAN 251 or a satisfactory placement test score. Spring, annually.

SPAN 253: COMMERICAL SPANISH 3 s.h.

A study of commercial terminology and style, with extensive practice in the writing of business letters of various kinds. Prerequisite: SPAN 251 or equivalent. Economics and business administration majors may substitute this course for SPAN 252. Two-year cycle.

SPAN 255: HISPANIC CIVILIZATION I 3 s.h.

A survey of Hispanic geography, history, literature, and culture designed to equip students with the materials and understanding necessary to the presentation of the language as rich, meaningful and integral part of a great civilization. Prerequisite: SPAN 252 or four years of high school and/or a satisfactory placement test score. Required of Spanish majors. Three-year cycle.

SPAN 256: HISPANIC CIVILIZATION II 3 s.h.

Continuation of SPAN 255, which is, however, not prerequisite. Three-year cycle.

SPAN 260: THE HISPANIC SHORT STORY 3 s.h.

A study of representative short stories by Spanish and Latin American writers of the modern period. All readings and discussions in Spanish. Two-year cycle.

SPAN 265: INTERMEDIATE CONVERSATION 3 s.h.

Practice creative language use in conversation, to develop proficiency for everyday situations and travel at intermediate level. Intensive vocabulary enrichment for students who have completed elementary or intermediate language courses and are lacking in aural-oral proficiency. May be substituted for SPAN 251 or 252 or used for major credit. Two-year cycle.

SPAN 351: ADVANCED SPANISH GRAMMAR AND COMPOSITION 3 s.h.

Intensive written drill, with emphasis on finer points of grammar, colloquial, and idiomatic usage. English-to-Spanish translation and free composition on everyday topics. Prerequisite: SPAN 255 and 256 or a literature course. Three-year cycle.

SPAN 352: INTRODUCTION TO SPANISH LITERATURE 3 s.h.

Study and discussion of the main trends in Spanish thought and literary expression. Emphasis is placed on the development of the novel and drama during the Golden Age. Three-year cycle.

SPAN 353: THE MODERN SPANISH DRAMA 3 s.h.

A study of the modern theater in Spain, with emphasis on Benavente, Garcia, Lorca, Casona, Buero Vallejo, and Lopez Rubio. Three-year cycle.

SPAN 354: THE MODERN SPANISH NOVEL 3 s.h.

The development of the novel in Spain during the 19th and 20th centuries, with emphasis upon the discussion of realism, regionalism, and naturalism. Three-year cycle.

SPAN 355: THE "GENERATION OF 1898" 3 s.h.

Discussion of the principal authors of this group and their influence on 20th century Spanish thought, with an analysis of the role played by historical events in the development of the movement. Three-year cycle.

SPAN 360: SURVEY OF SPANISH-AMERICAN LITERATURE 3 s.h.

Study and discussion of the evolution of Spanish-American literary expression from the colonial period to the twentieth century. Three-year cycle.

SPAN 451: SUPERVISED READINGS IN HISPANIC LITERATURE 3 s.h.

This course is devoted to selected readings determined in relation to the needs and interests of the individual major. On demand.

SPECIAL EDUCATION

SPED 210: HUMAN EXCEPTIONALITIES 3 s.h.

The course is a study of the causes, characteristics, and implications -- educational, social, and vocational -- of children who are exceptional because of intelligence, physical development, behavior, vision, hearing, and speech. It also acquaints prospective professional personnel with vocational opportunities in Special Education and Rehabilitation. Each semester on Main Campus, and fall semester at Venango Campus. Multicultural education will be applied.

SPED 215: HUMAN RELATIONS SKILLS TRAINING 2 s.h.

This course has been designed to help students grow in their ability to communicate feelings and thoughts, to interact positively and sensitively in group situations, and to apply interpersonal skills to the resolution of professional problems in special education settings. Each semester on Main Campus; fall semester at Venango Campus.

SPED 220: NATURE OF MENTAL RETARDATION 3 s.h.

This is a comprehensive study of the biological, psychosocial, and educational implications of retarded mental development, including a consideration of etiology; assessment and diagnosis; educational programs, including preschool and postschool; adult social and vocational adjustment; national and local programs; and research. Prerequisite: SPED 210. Each semester on Main Campus, and spring semester at Venango Campus. Multicultural education will be applied.

SPED 225: EARLY FIELD EXPERIENCES 1 s.h.

An early exposure to types of special education programs for various types of exceptional individuals including community programs, institutions, and schools. Each semester on Main Campus, and spring semester at Venango Campus.

SPED 230: BEHAVIOR DISORDERS 3 s.h.

This course will familiarize the student with atypical behaviors using coexistent classification systems. Causation, evaluation, and rehabilitation will be studied with an emphasis on the limitations and responsibilities of various professionals and paraprofessionals. Prerequisite: SPED 210. Offered at Venango Campus only.

SPED 235: LEARNING DISORDERS 3 s.h.

A study of the causes and characteristics of learning disorders. Concerns of diagnosis, prescription, and classroom management are presented, with emphasis on the role of the paraprofessional. Prerequisite: SPED 210. Offered at Venango Campus only.

SPED 240: THE PHYSICALLY HANDICAPPED 3 s.h.

The course presents the major physical anomalies, the reaction of family and individuals to the handicap, therapeutic procedures, rehabilitation services, and direct contacts with persons in programs for the handicapped. Prerequisite: SPED 210. Each semester on Main Campus, and fall semester at Venango Campus.

SPED 245: BEHAVIOR MANAGEMENT

2 s.h.

This experience provides persons with knowledge and skills to analyze instructional settings, organize learners for instruction, and maintain a supportive learning climate for handicapped individuals. Prerequisite: SPED 210. Offered at Venango Campus only.

SPED 250: THE HELPING RELATIONSHIP
PRINCIPLES AND PROCEDURES

3 s.h.

This course will assist students to acquire knowledge and skill in the performance of required tasks and /or roles of Habilitative Service staff in developing humanizing environments for exceptional persons in various settings. Prerequisites: SPED 230, 235, 245. Offered at Venango Campus only.

SPED 295: FIELD EXPERIENCE

6 s.h.

This is a half-time, full semester field experience in selected programs. The field experience will focus on assisting in the delivery of human/educational services to exceptional individuals. Prerequisites: Minimum of 45 semester hours and SPED 230, 235, 245. Offered at Venango Campus only.

SPED 305: SPECIFIC LEARNING DISABILITIES

3 s b

The course will focus on the nature of specific learning disabilities. The areas of concern are the history, definition, characteristics, assessment, strategies and tactics of instruction and/or remediation, vocational implications and Federal and State laws and regulations in regard to the individual who is learning disabled. Prerequisite: SPED 225, 240. Each semester.

SPED 310: SOCIAL AND EMOTIONAL DISTURBANCES

3 s.h.

This course will focus upon the nature of social and emotional disturbances, and familiarize the student with atypical behaviors utilizing current classification systems and theoretical models. History, etiology, nature, characteristics, syndromes, assessment, and education treatment approaches will be emphasized. Prerequisite: SPED 225, 240. Each semester.

SPED 400: SPECIAL TOPICS

1-6 s.h.

This course deals with topical themes in Special Education to expand the knowledge and competence of teachers. Enrollment is by consent of the instructor. Summers only.

SPED 410: EDUCATIONAL APPRAISAL AND PRESCRIPTION I

4 s.b.

This experience is conducted in the psychoeducational clinic of the Special Education Center and involves observation and active participation in educational diagnostic/prescriptive processes with persons who have learning problems. Prerequisite: SPED 310. Each semester.

**SPED 415: INSTRUCTIONAL DEVELOPMENT AND STRATEGIES
FOR MILDLY/MODERATELY HANDICAPPED 6 s.h.**

This is the study of the process of individualizing instruction for children with mild to moderate learning handicaps. It involves designing basic instructional sequences utilizing behavioral objectives, matching media and learner and goal-characteristics, identifying appropriate instructional strategies, and evaluating the effectiveness of instruction. Prerequisites: SPED 310, 410; ELED 323 and 324, with exception of Habilitative Science majors. Multicultural education will be applied. Each semester.

**SPED 420: INSTRUCTIONAL DEVELOPMENT AND STRATEGIES
FOR SEVERELY/PROFOUNDLY MULTIHANDICAPPED 6 s.h.**

This is a study of the process of individualizing instruction for children with severe to profound learning handicaps. It involves designing basic instructional sequences utilizing behavioral objectives, matching media with learner and goal-characteristics, identifying appropriate instructional strategies, and evaluating the effectiveness of instruction. Prerequisites: SPED 310, 410; ELED 323 and 324, with exception of Habilitative Science majors. Each semester.

**SPED 425: BEHAVIOR MANAGEMENT IN
SPECIAL EDUCATION SETTINGS 3 s.h.**

This course considers contemporary curricular innovations in educational programs for exceptional children and youth, with particular attention to the sociocultural implications of changing curricular practices and the new instructional media and technology. Prerequisites: SPED 310, 410; ELED 323 and 324, with exception of Habilitative Science majors. Each semester.

**SPED 435: INSTRUCTIONAL DEVELOPMENT AND STRATEGIES
FOR THE GIFTED AND TALENTED 6 s.h.**

This course will be (when possible) a workshop with school children and intended to develop the capacity of the educator to plan, develop, deliver and evaluate programs that will help the gifted or talented realize their individual and collective potential. Prerequisites: SPED 210 or PSY 522, or teaching certificate.

**SPED 440: INSTRUCTIONAL DEVELOPMENT AND STRATEGIES
FOR CULTURALLY DIFFERENT CHILDREN 3 s.h.**

This is a study of the process of individualizing instruction for children who are not members of the dominant culture and whose cultural membership significantly influences the educational process and school performance. It involves designing basic instructional sequences, selecting and matching media with learner and goal characteristics, identifying culture-appropriate instructional strategies and evaluating the effectiveness of instruction. Summer only.

SPED 445: CAREER EDUCATION FOR THE DISABLED 2 s.h.

This course will examine career education for the disabled as a whole life process involvement that includes not only vocational needs, but daily living, personal/social, and occupational skills. Prerequisite: SPED 310. Multicultural education will be applied. Each semester.

Observation and participation in teaching children with retarded mental development and in activities related to the performance of a teacher's work. Prerequisites: SPED 415, 420, 425.

SPED 499: INDEPENDENT STUDIES IN SPECIAL EDUCATION

1-3 s.h.

This course is designed to provide students with an opportunity to explore an area of special needs or interest in Special Education in depth under the supervision of a faculty member of the department. Students must develop a proposed study plan and secure the approval of the department chairman prior to registration. Prerequisite: Junior or senior standing.

Waiver: Change in prerequisite may be made with approval of department chair and course instructor.

SPEECH COMMUNICATION AND THEATER

SCT 101-104: SPEECH COMMUNICATIONS AND THEATER ACTIVITIES

1-3 s.h.

SCT 101-104 may be taken for 1-6 credits on a contract basis. Students may earn no more than 3 credits each semester through participation in one, or more than one, of the SCT activities, with a maximum of 6 credits possible in SCT 101-104. Credit for SCT activities is **optional** and voluntary participation (without credit) is also encouraged. Instructors determine the number of credits and have the authority to approve/reject any contract for credit in SCT 101-104 based on the student's interest and ability in the activity. Credits earned in SCT 101-104 may be counted toward graduation under Personal Development and Life Skills or Free Electives.

SCT 101: DEBATE

1-3 s.h.

1-6 credits may be earned through participation on the Debate Team by successfully completing the terms of the 'Contract for Credit' in SCT Activities, subject to approval by instructor and department chairperson. No more than 3 credits may be taken in SCT 101 during any one semester. Students should not enroll in SCT 101 and 256 for credit concurrently. Each semester.

SCT 102: INDIVIDUAL SPEAKING EVENTS PROGRAM

1-3 s.h.

1-6 credits may be earned through participation on the individual Events Team by successfully completing the terms of the Contract for Credit in SCT Activities, subject to approval by instructor and department chairperson. No more than 3 credits may be earned in SCT 102 during any one semester. Students may not enroll concurrently in SCT 102 and SCT 155, 213, or 254 without instructor permission. Each semester.

SCT 103: THEATRICAL PERFORMANCE 1-3 s.h.

1-6 credits may be earned through performance in College Theater productions by successfully completing the terms of the 'Contract of Credit' in SCT Activities, subject to approval by instructor and department chairperson. No more than 3 credits may be earned in SCT 103 during any one semester. Students may not enroll concurrently in SCT 103 and SCT 254, 350, or 361 without instructor permission. Each semester.

SCT 104: THEATRICAL PRODUCTION 1-3 s.h.

1-6 credits may be earned through participation in technical theater by successfully completing the terms of the 'Contract For Credit in SCT Activities,' subject to approval by instructor and department chairperson. No more than 3 credits may be earned in SCT 104 during any one semester. Students should not enroll for credit concurrently in SCT 104 and 161, 262, or 351. Each semester.

SCT 113: FUNDAMENTALS OF SPEECH 3 s.h.

Study, application and evaluation of principles of organization, evidence, reasoning, critical thinking, verbal and nonverbal behavior, one-way and two-way communication, and small group interaction in the oral communication setting; emphasis upon meeting the individual needs of students through individualized instruction utilizing communication experiences. Each semester.

SCT 115: PARLIAMENTARY PROCEDURE 3 s.h.

The objective of the course is to investigate procedures used by members and officers of decision-making bodies in committees, groups, government, and formal organizations. Fall, annually.

SCT 120: THEATER PLAY PRODUCTION 3 s.h.

Introductory work in elements of theater, including directing, acting, make-up, criticism, stagecraft, and stagelighting. No prerequisite. Fall, annually.

SCT/ENG 125: MODES OF DISCOURSE 6 s.h.

ENG/SCE 125 is an interdisciplinary course which aims to integrate the students' production of both written and spoken discourse. The course has an alternative method of teaching communication, and draws upon the skills of instructors from English and Speech Communication Theater. ENG/SCT 125 will be taken by freshmen enrolled in the Honors Program, and will replace both ENG 111 and SCT 113. (Not open to students who have taken ENG 111 or SCT 113.)

SCT 155: INTRODUCTORY INTERPRETATION 3 s.h.

During this course the student will explore the art of interpretation, have the opportunity to develop and improve basic performance skills and train to share the world of literature with audiences in media or the theater. Each semester.

SCT 161: STAGECRAFT 3 s.h.

A study of the theory, materials, and practice of stage construction. In addition to technical instruction, significant emphasis is placed on the relationship between the dramatic function of the setting and its actual physical realization. Student projects and required production labs provide practical experience. Spring, annually.

SCT 200: INTERPERSONAL COMMUNICATION THEORY AND PROCESSES 3 s.h.

The course focuses on the study of interpersonal communication, specifically the investigation of major theories and research in the field and the application of those theories to improving the students' interpersonal skills. Prerequisite: SCT 113 or consent of instructor. Each semester.

SCT 201: MOVEMENT AND DANCE FOR THE STAGE 3 s.h.

This course is devoted to fundamental movement and creative dance for the actor. Emphasis is on period styles of movement and creative dance for musical theater presentations. Use of body movement exercises for performance, discipline and nonverbal communicative forms are also encompassed. Each semester.

SCT 210: INTRODUCTION TO RHETORICAL THEORY 3 s.h.

The course is designed to investigate, on a fundamental level, the historical and conceptual development of the major theories of rhetorical discourse. Theories from classical to contemporary are applied to analysis of the spoken word. Course stresses speech making and criticism of historical and current political rhetoric. Spring, odd numbered years.

SCT 213: ADVANCED PUBLIC SPEAKING 3 s.h.

Inquiry into the practice and principles of effective public speaking. Detailed analysis of the areas of invention, arrangement, style, and delivery, and an introduction to speech criticism as a tool to improve the speaker's own abilities. Prerequisite: SCT 113 or consent of instructor. Each semester.

SCT 214: BUSINESS AND PROFESSIONAL SPEAKING 3 s.h.

This course will focus on how people use speech communication skills in business and professional settings. It will survey modern speech communication theory, as well as coping in groups, listening, negotiation, influencing others, instructional communication and barriers to effective business and professional speaking. This course is both theory and performance based, and students are expected to make several oral presentations. Prerequisite: SCT 113 or consent of instructor. Each semester.

SCT 215: SPECIAL TOPICS IN SPEECH COMMUNICATION AND THEATER 1-6 s.h.

This course focuses on offering special topics reflecting the interest of students. The course content varies from semester to semester. Suitable for both majors and non-majors in Speech Communication and Theater. May be taken for a maximum of 9 credits in the major. On demand.

The objective of this course is to help students improve their speech by the elimination of faulty voice and articulation habits. Attention is given to such basic skills as vocal variety, projection, breath control, tone production and articulation. Tape recordings are used as a helpful device of analyzing problems and noting progress. Each semester.

SCT 253:	INTRODUCTION TO THE THEATER	3 s.h.
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A study of the techniques and contemporary practices in the organization of dramatic material, survey of division of labor for creation of dramatic material, and analysis of the literary concepts, such as realism and existentialism, that motivate the contemporary audience. Each semester.

SCT 254:	PRINCIPLES OF ACTING I	3 s.h.
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Training in the basic elements of the actors' craft. Entering and living through imagined circumstances by the use of improvisation and theater exercises. Suitable general elective for non-theater majors. Fall, annually.

SCT 255:	ADVANCED INTERPRETATION	3 s.h.
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Inquiry into the advanced techniques of the oral interpretation of poetry. Emphasis upon analysis and style. Prerequisite: SCT 155. Spring, odd numbered years.

SCT 256:	ARGUMENTATION AND DEBATE	3 s.h.
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Study of argumentation in the area of academic debate and the legal world. Emphasis is placed on applying theories and techniques of argumentation to developing analytical abilities, reasoning, use of data and evidence to support arguments. Fall, annually.

SCT 357:	ADVANCED DEBATE	2 s.h.
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Further experience in competitive debating and in a variety of debating forms is provided. Prerequisite: Consent of instructor. On demand.

SCT 262:	STAGE LIGHTING	3 s.h.
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An introduction to the theory and practice of theater lighting. Areas of study range from the history and purpose of theater lighting to its mechanics and control, including sections on optics, electrical theory, and the physiology of color perception. Student projects and required production labs provide practical experience in stage lighting. Prerequisite: SCT 161 or consent of instructor. Fall, annually.

SCT 264:	DISCUSSION	3 s.h.
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The course is designed to expand the students' knowledge of the concepts and theories of group communication. Emphasis is placed on the task, leadership and interpersonal skills of group participants. Each semester.

SCT 300: COMMUNICATION IN ORGANIZATIONS 3 s.h.

This course is designed to give insight into traditional and modern concepts of channels of communication in simple and complex organizations with emphasis on informal and formal group dynamics, interpersonal relationship, leadership, communication theory, and creativity. Considerable attention is given to interviewing. Each semester.

SCT 301: ADVANCED MOVEMENT AND DANCE FOR THE STAGE 3 s.h.

The course is an extended study of the principles of movement control as begun in beginning Movement and Dance. The course of study begins with the basic principles of breathing, tension-relaxation exercises, and theater movement exercises. The course then moves into areas of intermediate ballet exercises, period style movement and ballroom, softshoe and tap dancing. Spring, annually.

SCT 310: THE RHETORIC OF CONFLICT 3 s.h.

This course introduces the student of rhetorical theory to the tools for analysis of individuals and groups which seek change in the political and social sphere, outside the normal decision-making process. Spring, even numbered years.

SCT 311: PERSUASION 3 s.h.

Study and practice in persuasive speaking. General theories of persuasion, the role of persuasion in a democratic society, and an introduction to modern experimental research in the area included. Spring, odd numbered years.

SCT 312: GENERAL SEMANTICS 3 s.h.

An investigation to the relationship between words and the realities they represent. Special emphasis will be given to an understanding of personal, political, and international problems that arise due to semantic breakdown in the communication process. Fall, annually.

SCT 333: SUMMER DIRECTION OF FORENSICS WORKSHOP 3 s.h.

A two week course designed to introduce the college student to high school debate and individual events. The course orients the college student to coaching and directing high school debate and individual events as well as administering forensic tournaments. Application is provided by a coinciding non-credit high school workshop. The student will be concentrating in either debate or individual events, with the option of taking the course on a second occasion to gain concentration in the area not previously studied. Prerequisite: At least 2 of the following: SCT 113, 213, 256, 257 or consent of the instructor. May be taken on two separate occasions for a maximum of 6 credits. On demand.

SCT 350: SUMMER DRAMA WORKSHOP 6 s.h.

The summer drama workshop combines study and practice in the dramatic arts and includes formal, intensive study in acting, play production, direction, makeup, scene design, stage lighting, and stagecraft. In conjunction with the workshop, Clarion University sponsors a Summer Theater Company consisting of members of the workshop which produces major shows. Summer, annually.

SCT 351: ADVANCED THEATER PRODUCTION 6 s.h.

Advanced study and practice in the dramatic arts, including projects in scene design, theater management and acting. Students will work with members of the Summer Drama Workshop in the production of major plays for the Clarion Summer Theater. Prerequisite: SCT 120 or 350. Summer, annually.

SCT 352: PLAY DIRECTING 3 s.h.

A study of the fundamentals and procedures of play directing and problems faced in educational theater, including analysis of the script, methods of casting, and rehearsal. Students direct one-act plays for public presentation. Fall, even numbered years.

SCT 355: INTERPRETATION OF PROSE FICTION 3 s.h.

Practice in the oral expression of the dynamics of narrative prose fiction. Specifically, it affords the student of interpretation an in-depth experience with focus on gaining performance skills and developing the knowledge of archetypal themes. Prerequisite: SCT 155. Spring, even numbered years.

SCT 358: PSYCHOLOGY AND SPEECH COMMUNICATION 3 s.h.

This is a theoretical survey course which examines the psychological aspects of communication codes, interpersonal communication, structural communication and the interaction of mediated communication. Spring, annually.

SCT 359: HISTORY OF THE THEATER

History of plays and playwrights from the fifth century B.C. to the present. Spring, annually.

SCT 361: PRINCIPLES OF ACTING II 3 s.h.

Building a character through textual analysis and practical work based on text. Analysis of scene structure, use of subtext, actions and objectives in the performance of selected scenes. Spring, annually.

SCT 362: PRINCIPLES OF STAGE DESIGN 3 s.h.

Study and practice in the aesthetics, methods, and techniques of setting and lighting design for the theater. Covers both periods and contemporary analysis. Prerequisite: SCT 161 or consent of instructor. Spring, annually.

SCT 363: THEATRICAL MAKE-UP 3 s.h.

Fundamentals and application of stage make-up. Fall, semiannually, odd numbered years.

SCT 364: SCENE PAINTING FOR STAGE 3 s.h.

Studio instruction in the use of brushwork and pigment to develop landscape, ornament, panelling, and architectural detail in stage scenery based on the analysis of form and source of light. Fall, odd numbered years.

SCT 365: ACTING FOR TELEVISION 3 s.h.

Designed to acquaint the student with the visual and oral techniques of movement, voice and characterization required for television productions. Prerequisite: acting students enrolled in the BFA program or instructor's consent. Spring annually in conjunction with COMM 660: TV Production.

SCT 366: STAGE DIALECTS 3 s.h.

The course focuses on the major dialects for the stage based upon study of the international phonetic alphabet. Prerequisite: SCT 251: Voice and Articulation or consent of instructor. On demand.

SCT 367: THEATRICAL COSTUMING 3 s.h.

The emphasis of this course is on the designing and building of costumes for the stage. Related to this basic emphasis are understanding costume history, fashion trends and rationales, developing a sense of visual design, incorporating the elements of color, tone, shape, texture, and a sense of theater. Student projects and required lab provide experience in the craft. Spring, even numbered years.

SCT 375: NON-VERBAL COMMUNICATION 2 s.h.

This course is designed to increase the awareness of students in the areas of nonverbal communication. The course describes and analyzes the various concepts of nonverbal communication, applies them to actual situations and relates them to the entirety of the communication process. Spring.

SCT 400: CROSS CULTURAL COMMUNICATION 3 s.h.

The course is designed to make the student aware of the role played by culture in developing personal attitudes, values, and behavior, and to apply this awareness to communicating across cultural differences in a variety of situations including interviewing, group discussion, and negotiation. Offered on a tri-semester basis.

SCT/COMM 411: FOUNDATIONS OF BROADCASTING 3 s.h.

An introduction to the broadcasting industry including history, technical aspects, station and network organization, advertising, ratings, social influences, programming and production. A foundation course for radio-TV career preparation, related fields of communication, and the development of knowledgeable consumers of the broadcast media. Fall, annually.

SCT 415: HONORS SEMINAR IN SPEECH COMMUNICATION 3 s.h.

This course is made available only to students who demonstrated a willingness and ability to undertake advanced academic work in the area of Speech Communication. Admission by department invitation only. On demand.

SCT 461: STYLES OF ACTING 3 s.h.

The emphasis of this course is on providing an understanding of the various period styles of acting, tracing theatrical performance history from classical Greek tragedy to contemporary acting theories. The focus is on the comprehension of each style and the application of those principles in a classroom situation. Prerequisites: SCT 254, 361 or consent of instructor. Rotation on a tri-semester basis.

SCT 490: INDEPENDENT STUDY 1-3 s.h.

Selected topics for research and/or performance projects in Speech Communication and Theater. Prior to registration students need to obtain an advisor who will direct their study
Approval by appropriate dean required.

SCT 495: INTERNSHIP IN SPEECH COMMUNICATION
AND THEATER 1-12 s.h.

The internship program gives the student the opportunity to apply classroom theory and techniques in business, government, theater, and other cooperating organizations. Course open to any Speech Communication and Theater major with a junior or senior standing with consent of Department. Student must have a 2.5 Q.P.A. or higher and 3.00 Q.P.A. in a major. On demand.

SPEECH PATHOLOGY AND AUDIOLOGY

SPA 125: INTRODUCTION TO COMMUNICATION DISORDERS..... 3 s.h.

This course serves as an introduction to the area of communication disorders and encompasses the wide variety of problems that humans may have in speech, language and hearing. Focus of the course is on the nature of such problems, their causes, their impacts on people, methods, for their evaluation, and methods for their management. Included is an orientation to the professions of speech-language pathology and audiology.

SPA 450: SPEECH SCIENCE 3 s.h.

This course studies models of the speech mechanism. Normal aspects of the physiology and acoustics of speech production are strongly emphasized. Fall, annually.

SPA 451: ANATOMY OF SPEECH AND HEARING MECHANISMS 3 s.h.

Study of the anatomy and physiology of the speech and hearing mechanisms. Fall, annually.

SPA 452: SPEECH PATHOLOGY I 3 s.h.

This course is an introduction to the profession of Speech Pathology emphasizing the description, diagnosis and treatment of voice, articulation, and stuttering disorders. Fall, annually.

SPA 453: SPEECH PATHOLOGY II 3 s.h.

This course emphasizes the description, diagnosis, and treatment of aphasia, cleft palate, and cerebral palsy. Spring, annually.

SPA 454: ORGANIZATION AND ADMINISTRATION OF
SPEECH AND HEARING PROGRAMS 3 s.h.

Teaching techniques, source materials, visual aids, special techniques to be employed in speech pathology and the organization and administration of clinical programs in a variety of environments are studied. Fall, annually.

SPA 455:	SPEECH, LANGUAGE, AND HEARING PROBLEMS IN THE SCHOOLS	3 s.h.
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Designed to acquaint the students with speech problems common to children on the elementary level. Emphasis is placed on the study of materials, methods, and techniques used by the classroom teacher in improving the speech of all children. On demand.

SPA 456:	PHONETICS AND PHONOLOGY	3 s.h.
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Transcription of normal and deviant speech using the International Phonetic Alphabet. Application of phonetics and phonemics to language and speech pathology. Instruments used in speech and hearing are studied. Spring, annually.

SPA 457:	DEVELOPMENTAL SEQUENCES IN LANGUAGE AND SPEECH.....	3 s.h.
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This course is a study of the development of language and speech in a normal child. Normative data in speech and language development are studied. Each semester.

SPA 458:	LANGUAGE DISORDERS IN CHILDREN	3 s.h.
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This course is designed to provide students with an understanding of language disorders in children, etiological factors associated with them, diagnostic and evaluative techniques, and therapeutic methodologies. Prerequisite: SPA 457. Spring, annually.

SPA 460:	HEARING PROBLEMS	3 s.h.
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The nature of hearing disorders and the audiological, medical, social, psychological, and educational implications are investigated. Fall, annually.

SPA 463:	SPEECH READING AND AUDITORY TRAINING.....	3 s.h.
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A comprehensive study of auditory rehabilitation with emphasis upon auditory training, speech reading, and speech training. Prerequisite: SPA 460. Spring, annually.

SPA 464:	AUDIOLOGY	3 s.h.
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A continuation of SPA 460: Hearing Problems. Prerequisite: SPA 460. Spring, annually.

SPA 465:	MANUAL COMMUNICATION	3 s.h.
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The course covers a comprehensive review of the theories of manual communication including an introduction to the major manual communication systems. The student will learn to sign and finger spell for use in communicating with and rehabilitation of the deaf and hard of hearing.

SPA 466:	LISTENING FOR THE HARD OF HEARING CHILD	3 s.h.
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This course provides an overview of various causes of hearing loss and the hearing, speech, language, and academic problems that can result from such a loss. The use of amplification systems to aid communication is discussed. The effect of classroom acoustics on the listener's ability to hear is also covered. Designed for the student who is not majoring in SPA.

SPA 467: CLINICAL OBSERVATION3 s.h

This course covers basic information pertaining to the profession of speech pathology and audiology. The student is given an orientation to the facilities, equipment, and operations of the Clarion University Speech and Hearing Clinic. Various types of clinical reports are studied and the student taught basic observational skills both in the classroom and clinic as a prerequisite for client contact for speech and hearing science majors.

SPA 468: SPEECH AND HEARING CLINIC I: PRACTICUM3 s.h.

Supervised clinical observation and practice in case study and conferences, diagnostic evaluations, remedial procedures, parent conferences and reporting. The application theory in the development of clinical skills with individuals and small groups of children and adults, for 135 clock hours. Prerequisite: SPA 452. Each semester.

SPA 469: SPEECH AND HEARING CLINIC II:
ADVANCED PRACTICUM 3 s.h.

A continuation of SPA 468. On demand.

SPA 472: SEMINAR IN SPEECH SCIENCE3 s.h.

This course begins with a review of the speech mechanism as a servosystem and transducer, and basic knowledge of the physics of sound. The remainder of the course focuses attention and is structured on the concept that the speech mechanism is a chain of events physiologically, acoustically, and perceptually. Each link in this chain of events is studied in terms of basic knowledge, pertinent research, and each link's contribution to the speech chain as a whole. Prerequisite: SPA 465 or a basic course in phonetics and/or speech science. Fall, annually.

SPA 422: CLINICAL EXTERNSHIP 6 or 12 s.h.

Observation of and participation in school and clinical environments. Each semester.

SPA 423: PROFESSIONAL PRACTICUM 2 s.h.

Problems, practices, and regulations relative to the clinical externship are identified and discussed. Topics covered include application of the behavioral therapeutic model, interpretations of professional ethics, functions of professional organizations, and Pennsylvania school relevant to the professional experience of speech/language pathologist.

SPA 498: SPECIAL TOPICS1-6 s.h.

Topics in various areas of Speech Pathology and Audiology. The format used will be selected by the professor as most suitable to the study. The course may be offered on request of students, subject to the availability of staff. Enrollment by consent of the instructor. On demand.

SPA 499: INDEPENDENT STUDIES IN
SPEECH PATHOLOGY AND AUDIOLOGY1-3 s.h.

This course is designed to provide students with an opportunity to explore an area of special need or interest in Speech Pathology and Audiology in depth under the supervision of a member of the department. Students must develop a proposed study plan and secure the approval of the proposed director and department chairperson prior to registration. Prerequisite: Junior or senior standing. Repeatable for a maximum of 6 s.h.

CLARION UNIVERSITY OF PENNSYLVANIA

of the State System of Higher Education

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James J. Scanlon, A.B., Ph.D.	Dean of the College of Arts and Sciences
Frank H. Sessions, B.S.Ed., M.S., Ph.D.	Dean of the College of Graduate Study and Continuing Education
John S. Shropshire, B.S.	Dean of Admissions and Enrollment Management
Marguerite VanLandingham, B.A., Ph.D.	Dean of the College of Business Administration

STUDENT SERVICES

George W. Curtis, Jr., B.A., M.A., Ph.D.	Vice President for Student Affairs
Herbert R. Bolland, B.A., M.A., Ph.D.	Counselor
Robert A. Brown, B.A., M.A.	Resident Director
Bridget M. Dolecki, B.S., M.A.	Resident Director
Edward F. Duchnowski, B.S., M.A.	Resident Director
Paul A. Dyson, B.S., M.S.	Resident Director
Mary Ann Fricko, B.A.	Counselor
Kenneth E. Grugel, B.Ed., M.A.	Director of Financial Aid
Judith A. Hinga, B.A., M.A.	Counselor
James P. Kole, A.G.S., B.S., M.Ed.	Coordinator of Guidance Services, Venango
Connie J. Laughlin, B.S., M.Ed.	Director of Career Placement Services
Marilynn A. Mikolusky, B.A., M.A., Ph.D.	Associate Dean for Student Life Services
Barry A. Morris, B.A., M.A., A.C.E.	Director of Residence Life
Donald A. Nair, B.S., M.Ed., Ed.D.	Counselor
David A. Tomeo, B.S.Ed., M.A.	Director of College Centers
James G. Tomestsko, B.S.	Resident Director
M. Jean Vest, B.A., M.S.	Resident Director
Hal R. Wassink, B.A., M.A.	Coordinator of Student Activities

GENERAL SERVICES

James Gleixner, B.S.	Personnel Director
Harry M. Hufnagel, M.S.	Director, Computer Center
Carl Larson	Custodial Services Manager
Don Elder, Sr.	Maintenance Superintendent

HEALTH SERVICES

Lawrence M. Gilford, B.S., M.D.	Director of College Health Services
Alice M. Spindler, R.N., Supervisor	Nurse
Elizabeth M. McCord, CRNP	Nurse Practitioner
Janes C. Paine, R.N.	Nurse
E. Jane Eshbaugh, R.N.	Nurse
Ruth A. Kapp, R.N.	Nurse
Ruth A. Hartle, R.N.	Nurse
Darlene Hartle, R.N.	Nurse

ADMINISTRATION AND FACULTY

Year in Parentheses indicates year of appointment to faculty

THOMAS A. BOND, (1980), Ph.D., President University of Missouri, A.B; University of Oklahoma, M.S., Ph.D.
LEONARD M. ABATE, (1966), M.A., Assistant Professor, History Northern Illinois University, B.A., M.A.
LEONARD ACKERMAN, (1981), Ed.D., Professor, Administrative Science Rutgers, The State University, B.A.; George Washington University, Ed.D.
ERNEST C. AHARRAH, (1956), Ph.D., Professor, Biology Clarion University, B.S.; Pennsylvania State University, M.Ed.; University of Pittsburgh, M.S., Ph.D.
STEPHEN K. AINSWORTH, (1985), Ph.D., Director of International Programs California State University, Fullerton, B.A.; Duke University, Ph.D.
DONNA ALBRO, (1985), J.D., Affirmative Action Officer Russell Sage, B.A.; Syracuse University, J.D.
PAULA AMROD, (1981), M.M., Assistant Professor, Music Memphis State University, B.M., M.M.
LORRAINE AMSDELL, (1971), M.Ed., Assistant Professor, Nursing Oil City Hospital School of Nursing, R.N.; University Pittsbugh, B.S., in Nursing Ed.; Edinboro State College, M.Ed.

- INEZ BAKER, (1966), M.A., Associate Professor, Communication
University of Cincinnati, B.S.; Teachers College, Columbia University, M.A., Prof. Diploma
- ROBERT H. BALDWIN, (1971), Ph.D., Professor, Education
Wesleyan University, B.A., M.A.T.; University of Pittsburgh, Ph.D.
- ROBERT BALOUGH, (1981), Ph.D., Associate Professor, Economics
Northern Illinois University, B.A., M.A., Ph.D.
- ARTHUR H. BARLOW, (1980), M.A.J.C., Associate Professor, Communication
University of Puget Sound, B.A.; University of Washington, M.A., University of Florida, M.A.J.C.
- GREGORY D. BARNES, (1976), M.B.A., CPA, Assistant Professor, Accountancy
University of Maryland, B.S., M.B.A.
- WILLIAM S. BARNES, (1984), Ph.D., Assistant Professor, Biology
Marietta College, B.A.; University of Massachusetts, Amherst, Ph.D.
- MICHAEL BARRETT, (1983), M.S., Assistant Professor, Computer Information Science
Boise State University, B.B.A.; Texas Tech University, M.S.
- NORBERT BASCHNAGEL, (1974), M.Ed., Associate Professor, Health and Physical Education
State University of New York at Buffalo, B.Ed., M.Ed.
- FRANK T. BATTISTA, (1970), Ed.D., Associate Professor, Education
University of Chicago, Roosevelt University, B.M.; The Pennsylvania State University, M.Ed., Ed.D.
- PAUL E. BECK, (1966), Ph.D., Professor, Chemistry
Franklin and Marshall College, B.S.; Duquesne University, Ph.D.
- WILLIAM R. BELZER, (1982), Ph.D., Associate Professor, Biology
Franklin and Marshall College, B.A.; University of Pennsylvania, Ph.D.
- LINDA BENSON, (1983), M.S.N., Assistant Professor, Nursing
Oil City School of Nursing, Slippery Rock State College, B.S.N.; Edinboro, M.S.N.
- VAHE H. BERBERIAN, (1965), Mus. Dipl., Associate Professor, Music
Lebanese Academy of Fine Arts, Mus. Diploma
- JACK H. BERTSCH, (1969), Ph.D., Associate Professor, Philosophy
Denison University, A.B.; Columbia University, L.L.B., J.D.; Ohio State University, Ph.D.
- NICHOLAS J. BEZAK, (1968), Ph.D., Professor, Mathematics
The College of Steubenville, B.A.; Carnegie-Mellon University, M.S.; University of Pittsburgh, Ph.D.
- J. DOUGLAS BILLS, (1981), B.S., University Registrar
Clarion University, B.S.B.A.

- FRANCIS M. BIRES, (1983), M.S., Environment Educator, McKeever Environmental Learning Center, Sandy Lake
The Pennsylvania State University, B.S.; George Williams College, M.S.
- GERALD C. BISH, (1976) J.D., Assistant Professor, Finance
University of Pittsburgh, B.A.; Suffolk University Law School, J.D.
- DONALD F. BLACK, (1973), M.Ed., Associate Professor, Music; Chair, Music Department
Wayne State University, B.S., M.Ed.
- DORIS F. BLACK, (1983), M.Ed., Assistant Professor, Health and Physical Education
Central State University, B.S.; Xavier University, M.Ed.
- JACK N. BLAINE, (1966), M.S.T., Vice President for Development and Institutional Advancement
Clarion University, B.S.; Antioch College, M.S.
- JOHN J. BODOH, (1974), Ph.D., Professor, Humanities
St. Paul Seminary, B.A.; University of Wisconsin-Madison, M.A., Ph.D.
- CHRISTIAN BOHLEN, (1965), M.M., Associate Professor, Music
Amsterdam Conservatory of Music, Mus. Dipl.; Indiana University, M.M.
- HERBERT B. BOLLAND, (1972), Ph.D., Professor, Chair, Counselor
Baylor University, B.A., M.A.; Texas Tech University, Ph.D.
- OLIVE C. BOWER, (1966), Ph.D., Professor, Chemistry
Florida Southern, B.S.; Pennsylvania State University, M.S., Ph.D.
- WILLIAM N. BRENT, (1976), Ph.D., Professor, Chair, Department of Chemistry
Purdue University, B.S.; Pennsylvania State University, Ph.D.
- DALE A. BROWN, (1980), Professor, Computer Information Science Department
Hiram College, B.A.; Syracuse University, M.S., Ph.D.
- LISBETH J. BROWN, (1973), M.Ed., Assistant Professor, Education
Mercyhurst College, B.A.; Edinboro State College, M.Ed.;
- ROBERT A. BROWN, (1985), M.S., Resident Director
East Stroudsburg University of PA, B.S.; Indiana University of PA, M.S.
- ROBERT G. BUBB, (1966), M.Ed., Professor, Health and Physical Education
University of Pittsburgh, B.S.; Pennsylvania State University, M.Ed.
- TERRY P. CAESAR, (1968), Ph.D., Associate Professor, English
University of Redlands, B.A.; University of Washington, Ph.D.
- BRIGITTE L. CALLAY, (1981), Ph.D., Associate Professor, Chair, Modern Languages and Cultures
University of Delaware, B.A., M.A.; University of Louvain, Ph.D.
- MARTHA M. CAMPBELL, (1973), M.Ed., Assistant Professor, English
Dakota State College, B.S.; South Dakota State University, M.Ed.

- WILLIAM D. CAMPBELL, (1974), Ph.D., Professor, Accountancy
Gannon College, B.S.; University of Pittsburgh, M.B.A., Ph.D. Commonwealth of Pennsylvania, CPA
- ALFRED B. CHARLEY, (1963), M.F.A., Associate Professor, Art
Southern Illinois University, B.S., M.F.A.
- JOHN J. CHIDO, (1983), Ph.D., Director of Field Services and Coordinator of Secondary Education, College of Education and Human Services
San Jose State University, B.A., M.A.; The University of Iowa, Ph.D.
- NANCY E. CHRISTIE, (1983), M.S.T., Assistant Director, McKeever Environmental Learning Center
Antioch College, B.A.; Antioch/New England Graduate School, M.S.T.
- FRANK M. CLARK, (1967), M.F.A., Associate Professor, Speech Communication and Theater
Indiana University of Pennsylvania, B.S.; Ohio University, M.F.A.
- FREDERICK G. CLARK, (1973), M.B.A., Associate Professor, Administrative Science
Ursinus College, B.A.; University of Pennsylvania, M.B.A.; Rutgers University, C.P.C.U.
- ALFRED B. CLARKE, (1970), M.Ed., Associate Professor, Associate Director of Administration
Slippery Rock University, B.S.; Pennsylvania State University, M.Ed.
- GREGORY CLARY, (1981), M.A., Instructor, Director of Special Services
Marshall University, B.A., M.A.
- JAMES H. COLE, (1967), Ed.D., Professor, Dean, College of Communication and Computer Information Science
Eastern Illinois University, B.S.; Indiana University, M.S., Ed.D.
- WILLIAM F. COMBS, (1965), Ph.D., Professor, Psychology
University of West Virginia, B.A., M.A.; University of Oklahoma, Ph.D.
- ALASTAIR T. CRAWFORD, (1963), M.A., Assistant Professor, History
Upsala College, B.A.; Montclair State College, M.A.
- ROBERT E. CRAWFORD, (1962), M.A., Assistant Vice President for Administration
Slippery Rock University, B.S.; University of Pittsburgh, M.A.
- DANIEL D. CRONIN, (1970), Ph.D., Professor, Mathematics
Duquesne University, A.B.; St. Louis University, Ph.D.
- GEORGE W. CURTIS, JR., (1968), Ph.D., Professor, Vice President for Student Affairs
Michigan State University, B.A., M.A.; United States International University, Ph.D.
- PETER L. DALBY, (1976), Ph.D., Professor, Biology
Genesee County Community College, Associate in Science; Michigan State University, B.S., M.S., Ph.D.
- JACK D. DAVIS, (1975), M Ed., Assistant Professor, Health and Physical Education
Clarion University, B.S.; Indiana State University, M.Ed.

- ANNE L. DAY, (1972), Ph.D., Professor, History
Emmanuel College, B.A.; Salem State College, M.Ed.; St. Louis University, Ph.D.
- CRAIG D. DEAN, (1981), M.S., Associate Professor, Computer Information Science
University of Pittsburgh, B.S., M.S.
- DEBRA E. DECKER, (1973), M.Ed., Instructor, Library
Lock Haven University, B.S.; West Chester University, M.Ed.; Clarion University, M.S.L.S.
- ENID DENNIS, (1976), Ph.D., Professor, Chair, Economics
Harpur College, B.A.; Pennsylvania State University, M.A.; SUNY at Binghamton, Ph.D.
- LARRY R. DENNIS, (1979), Ph.D., Professor, Chair, English
Harpur College, B.A.; University of Washington, M.A.; Pennsylvania State College, Ph.D.
- RAFAEL DIAZ Y DIAZ, (1966), B.A., Assistant Professor, Spanish
University of Denver, B.A.
- DONALD H. DININNY, (1965), Ph.D., Professor, Speech Pathology and Speech Science
Clarion University, B.S.; Pennsylvania State University, M.Ed.; Ohio University, Ph.D.
- BRIDGET M. DOLECKI, (1982), M.Ed., Resident Director
Clarion University, B.S., M.Ed.
- JAMES A. DONACHY, (1960), M.S., Associate Professor, Biology
Clarion University, B.S.; Ohio University, M.S.
- NADINE D. DONACHY, (1962), M.S., Professor, Biology; Coordinator, Medical Technology
Ohio University, A.B., M.S.
- EDWARD F. DUCHNOWSKI, (1981), M.A., Resident Director
Austin Peay State University, B.S., M.A.
- T. AUDEAN DUESPOHL, (1970), M.Ed., M.S.N., Director, Division of Nursing
Oil City School of Nursing; University of Pittsburgh, B.S.N.; Edinboro University, M.Ed.;
State University of New York at Buffalo, M.S.N.
- EDWARD G. DUFFY, (1961), Ph.D., Professor, History
Pennsylvania State University, B.A., M.A., Ph.D.
- CHARLES H. DUGAN, (1976), M.F.A., Assistant Professor, Art
Ohio University, B.A.; Bowling Green State University, M.F.A.
- TERRI L. DUNKLE, (1971), M.A., Associate Professor, Special Education
Clarion University, B.S.; University of New Mexico, M.A.
- BRIAN DUNN, (1978), B.A., Instructor, Chair, History
Clarion University, B.A.
- DEMPSEY DUPREE, (1967), Ph.D., Professor, Accountancy
University of Michigan, B.B.A., M.B.A.; Michigan State University, Ph.D.; States of
Pennsylvania and South Carolina, CPA
- PAUL H. DYSON, (1983), M.S., Resident Director
University of Scranton, B.S.; University of Scranton, M.S.

- CHARLES ECONOMOUS, (1964), M.S. in L.S., Associate Professor, Chair, Library Science
University of North Carolina, B.A., M.S. in L.S.
- ROBERT V. EDINGTON, (1983), Ph.D., Provost and Academic Vice President
Vallejo Community College, A.A.; San Francisco State College, B.A.; University of
Washington, M.A., Ph.D.
- WILLIAM T. EDWARDS, (1969), Ed.D., Associate Professor, Art
Indiana University of Pennsylvania, B.S.; Florida State University, M.S.; Pennsylvania State
University, Ed.D.
- JEFFREY EICHER, (1983), J.D., Associate Professor, Finance
Clarion University, B.S.; University of Pittsburgh, J.D.; State of Pennsylvania, CPA.
- JOHN G. EICHLIN, (1979), J.D., Assistant Professor, Finance
Hiram College, B.A.; University of Akron School of Law, J.D.
- KENNETH F. EMERICK, (1963), M.L.S., Assistant Professor, Librarian
Clarion University, B.S.; Rutgers University, M.L.S.
- ROGER A. ENGLE, (1967), M.S., Assistant Professor, Mathematics
Slippery Rock University, B.S.; University of Alaska, M.S.
- WILLIAM G. ENGLISH, (1972), M.S., Assistant Professor, Health and Physical Education
Lock Haven University, B.S.; Slippery Rock University, M.Ed.
- JOHN J. ERNISSEE, (1983), Ph.D., Assistant Professor, Geography and Earth Science
SUNY Oneonta, B.A.; University of South Carolina, M.S., Ph.D.
- ALBERT R. EXTON, (1969), Ph.D., Professor, Physics
Carnegie-Mellon University, B.S.; University of Pittsburgh, Ph.D.
- CARL S. FARINACCI, (1983), J.D., CPA, Associate Professor, Accountancy
University of Akron, B.S.C.E., J.D.; Kent State University, M.B.A.; Case Western Reserve
University, M.Acc.
- DEAN A. FARNHAM, (1969), D.Mus. Arts, Professor, Music
Boston University, B.A., M.M., D.Mus. Arts.
- CARMEN S. FELICETTI, (1970), Ed.D., Professor, Communication
California University, B.S.; Indiana University, M.S., Ed.D.
- LINDA FELICETTI, (1971), Ph.D., Assistant Professor, Marketing
Western College, B.A.; Indiana University, M.B.A.; University of Pittsburgh, Ph.D.
- PIERRE N. FORTIS, (1977), Ph.D., Associate Professor, Modern Languages and Cultures
University of California at Los Angeles, B.A., M.A., Ph.D.
- JOHN FOX, (1983), Ph.D., Associate Professor, Economics
University of Connecticut, B.A.; Brown University, M.A., Ph.D.
- BENJAMIN M. FREED, (1975), Ph.D., Associate Professor, Chair, Mathematics Department
Marietta College, B.S.; Kent State University, M.A., Ph.D.

- MARY ANN FRICKO, (1985), B.S., Associate Professor, Counselor
University of Michigan, B.S.
- HENRY L. FUEG, (1968), Ph.D., Associate Professor, Communication
West Virginia Institute of Technology, B.S.; West Virginia University, M.A.; Indiana
University, Ph.D.
- WILLIAM FULMER, (1976), M.B.A., Associate Professor, Administrative Science Department
Westminster College, B.S.; Clarion University, M.B.A.
- AHMAD F. M. GAMALUDDIN, (1970), Ph.D., Professor, Library Science
Cairo University, B.A.; Western Michigan University, M.S.L.S.; University of Pittsburgh,
Ph.D.
- CONSTANCE E. GAMALUDDIN, (1978), M.L.S., Assistant Professor, Chair, Librarian
Indiana University of Pennsylvania, B.S.; University of Pittsburgh, M.L.S.
- CHARLES J. GEIGER, (1985), Ph.D., Assistant Professor, Geography and Earth Science
Edinboro State College, B.S.; Kent State University, M.A.; University of Toronto, Ph.D.
- STEPHEN I. GENDLER, (1969), Ph.D., Professor, Mathematics
University of Pennsylvania, B.A.; Pennsylvania State University, M.A., Ph.D.
- ROBERT B. GIRVAN, (1973), Ph.D., Associate Professor, Sociology
Gettysburg College, B.A.; University of Denver, M.A.; University of Colorado, Ph.D.
- PATRICIA A. GRACY, (1978), M.S.N., Assistant Professor, Nursing
Spencer Hospital of Nursing, R.N.; Villa Maria College, B.S.N.; State University of New York
at Buffalo, M.S.N.
- BRYCE C. GRAY, (1966), M.A., Assistant Professor, Education, Assistant to the Dean,
College of Business Administration
Juniata College, B.A.; Bucknell University, M.A.
- EMMETT D. GRAYBILL, JR., (1967), M.A., Associate Professor, Political Science
Kenyon College, B.A.; Ohio State University, M.A.
- FRANCIS G. GRECO, (1967), Ph.D., Professor, English Department
Duquesne University, B.S., M.A., M. in Mus. Ed., Ph.D.
- EDWARD S. GREJDA, (1961), Ph.D., Professor, English
Clarion University, B.S.; University of Pittsburgh, M.Litt., Ph.D.
- WILLIAM E. GROSCH, (1962), M.Ed., Associate Professor, Art
Edinboro University, B.A.; Pennsylvania State University, M.Ed.
- KENNETH E. GRUGEL, (1981), M.A., Director, Financial Aid
University of Toledo, B.Ed.; Ohio State University, M.A.
- JOSEPH P. GRUNENWALD, (1978), D.B.A., P.E., Professor, Chair, Marketing
Youngstown State University, B.E.; Kent State University, M.B.A., D.B.A. Registered
Professional Engineer.

- LOUIS E. GURECKA, (1978), M.A., Assistant Professor, Chair, Special Education Department
Clarion University, B.S., M.S.; Duquesne University, M.A.
- THOMAS E. GUSLER, (1984), S.Ed., Director of Institutional Research and Academic Technical Systems
Shippensburg University, B.S., M.Ed.; Florida State University, S.Ed.
- ANITA J. HALL, (1977), M.B.A., Instructor, Finance
Indiana University of Pennsylvania, B.S.; Univeristy of South Carolina, M.A.T.; Clarion University of Pennsylvania, M.B.A.
- JACK S. HALL, (1970), Ed.D., Associate Professor, Music
University of Kentucky, B.A.; Eastern Kentucky University, M.A.; Indiana University of Pennsylvania, Ed.D.
- MARY R. HARDWICK, (1967), Ph.D., Professor, Speech Communication and Theater
Oklahoma State University, B.A.; Ohio University, M.F.A.; Michigan State University, Ph.D.
- LEE-OLIVE HARRISON, (1975), M.Ed., Assistant Professor, Nursing
Wittenberg University, B.S.N.; Flower-Fifth Avenue Hospital School of Nursing, R.N.; Slippey Rock University, M.Ed.
- HAROLD V. HARTLEY, JR., (1963), Ph.D., Professor, Speech Pathology and Audiology
Bloomsburg University, B.S.; Pennsylvania State University, M.Ed.; Kent State University, Ph.D.
- RICHARD HAWK, (1980), M.B.A., Assistant Professor, Chair, Finance
Clarion University, B.S., M.B.A.; Commonwealth of Pennsylvania, CPA.
- JOHN W. HEAD, (1973), Ph.D., Associate Professor, Library Science
University of Wisconsin, B.S., M.S., Ph.D.
- IRVIN C. HENRY, (1967), M.A., Associate Professor, Mathematics
Clarion University, B.S.; Kent State University, M.A.
- WILLIAM L. HENRY, (1974), J.D., Assistant Professor, Finance
Allegheny College, B.A.; West Virginia College of Law, J.D.
- RICHARD P. HERMAN, (1980), B.A., Assistant Director, Public Affairs;
Sports Information Director
Point Park College, B.A.
- R. DENNIS HETRICK, (1972), Ph.D., Professor, Chair, Speech Pathology and Audiology Department
Clarion University, B.S.; Purdue University, M.S.; Kent State University, Ph.D.
- JUDITH HINGA, (1984), Ed.D., Assistant Professor, Counselor
Michigan State University, B.A.; Western Michigan University, M.A.; Ed.D.
- ROBERT D. HOBBS, (1971), Ed.D., Professor, Art
Howard County Junior College, A.A.; West Texas University, B.S.; Colorado State College of Education, M.A.; Pennsylvania State University, Ed.D.

- JAMES HOLDEN, (1978), Assistant Professor, Chair, Computer Information Science
Edinboro University, B.S.; The Pennsylvania State University, M.Ed.
- SUNION THEODORE HONG, (1978), Ph.D., CPA, Professor, Accountancy
Han Kook College, Seoul, B.A.; New York University, M.B.A., Ph.D.; States of New York,
Massachusetts, CPA.
- JANICE H. HORN, (1966), A.M.L.S., Assistant Professor, Librarian
Luther College, B.A.; University of Michigan, A.M.L.S.
- ROGER HORN, (1966), A.M.L.S., Assistant Professor, Librarian
Louisiana State University, B.M.E.; University of Michigan, A.M.L.S.
- HENRY M. HUFNAGEL, (1981), M.S., Director, Computer Center
The Pennsylvania State University, B.S., M.S.
- BRYAN HUWAR, (1977), Ph.D., Professor, Special Education
Slippery Rock University, B.S.; Temple University, M.Ed.; Kent State University, Ph.D.
- MADelyn JABLON, (1983), M.A., Assistant Professor, English
State University of New York at Buffalo, B.A., M.A.
- DAVID R. JACKMAN, (1985), Captain, U.S. Army, Assistant Professor, Military Science,
Reserve Officer Training Corps
Ohio State University, B.A.
- ALBERT A. JACKS, JR., (1963), M.Ed., Associate Professor, Chair, Health and Physical
Education Department
Pennsylvania State University, B.S., M.Ed.
- ALVIN M. JASPER, (1985), Master Sergeant, U.S. Army, Operations Sergeant/Principle
Drill Instructor, Military Science
Reserve Officer Training Corps.
- WANDA JETKIEWICZ, (1973), Ph.D., Assistant Profesor, Biology
University of Pittsburgh, B.S., Ph.D.
- MARGARET ANN JETTER, (1973), Ph.D., Associate Professor, Library Science
Mercyhurst College, B.A.; University of Michigan, M.A.; Michigan State University, Ph.D.
- SHIRLEY JOHNSON, (1983), M.L.S., Instructor, Librarian
College of St. Rose, B.S.; SUNY, Albany, M.L.S.
- VIRGINIA G. JOHNSON, (1983), M.Ed., Instructor, Educational Opprotunity Program/Act
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State University of New York at Cortland, B.A.; Clarion University, M.Ed.
- JANINA JOLLEY, (1984), Ph.D., Assistant Professor, Psychology
California State University, Dominguez Hills, B.A.; Ohio State University, M.A., Ph.D.
- LEONARD A. JONES, (1982), M.S., Resident Director
Southern Illinois University, B.S., M.S.

- CATHERINE R. JOSLYN, (1979), M.F.A., Associate Professor, Art, Director of the Honors Program
Colby College, B.A., Indiana University, M.F.A.
- DONNA M. KAHLE, (1978), Ed.D., Assistant Professor Computer Information Science
Clarion University, B.A., B.S.; University of Florida, M.Ed., Ed.D.
- WILLIAM J. KARL, (1959), M.A., Assistant Professor, English
Michigan State University, Clarion University, B.S.; Columbia University, M.A.
- SHELLY SCHLESSINGER KARP, (1983), Ph.D., Assistant Professor, Library Science
University of Illinois, B.A., M.L.S.; Florida State University, Ph.D.
- JEHAN G. KAVOOSI, (1974), M.A., Assistant Professor, Administrative Science
University of Mashad, Iran, B.A.; Northern Illinois University, B.S., M.A.
- MARY C. KAVOOSI, (1982), M.S.N., Assistant Professor, Nursing
Northern Illinois University, B.S.N.; Edinboro University, M.S.N.
- ROBERT A. KEENAN, (1968), M.A., Associate Professor, Speech Pathology and Audiology
Allegheny College, A.B.; Ohio State University, M.A.
- J. COLLEEN KELLY, (1985), M.F.A., Assistant Professor, Speech Communication and Theater
Eastern Michigan University, B.S., M.A.; Ohio University, M.F.A.
- GAIL L. KENEMUTH, (1971), Ed.D., Associate Professor, Education
Clarion University, B.S.; Pennsylvania State University, M.Ed., Ed.D.
- ALVIN S. KENNEDY, (1971), M.A., Associate Professor, Assistant Director of Public Affairs
Clarion University, B.S.; Indiana University of Pennsylvania, M.A.
- ROBERT L. KERN, (1970), Ed.D., Professor, Special Education
Eastern Nazarene College, A.B.; Nazarene Theological Seminary, B.D.; Pennsylvania State University, M.Ed., Ed.D.
- CLIFFORD M. KETH, (1959), Ed.D., Professor, Physics; Director, Planetarium
Clarion University, B.S.; Pennsylvania State University, M.Ed., Ed.D.
- MOHAMMAD I. KHAN, (1968), Ph.D., Professor, History
St. John's College, Agra, B.A.; University of Lucknow, M.A., L.L.B.; Claremont Graduate School, Ph.D.
- PAUL Y. KIM, (1978), Ph.D., Professor, Marketing Department
University of Minnesota, B.A., M.S., Ph.D.
- DEBORAH ALDEN KING, (1982), M.Ed., Instructor, Counselor, Upward Bound Program
Clarion University of Pennsylvania, B.S.; Slippery Rock University of Pennsylvania, M.Ed.
- DAVID H. KLINDIENST, (1969), Ed.D., Associate Professor, Education
University of Pittsburgh, B.A., M.Litt.; Pennsylvania State University, Ed.D.
- ERIKA KLUESENER, (1982), Ph.D., Assistant Professor, German
Muenster University, West Germany, B.A.; Munich University, West Germany, M.A.; Washington University, Ph.D.

- JAMES H. KNICKERBOCKER, (1970), Ph.D., Professor, English
Stanford University, B.A., M.A.; Washington State University, Ph.D.
- WILLIAM R. KODRICH, (1967), Ph.D., Professor, Biology
Hartwick College, B.A.; University of Pittsburgh, Ph.D.
- JAMES P. KOLE, (1976), M.Ed., Assistant Professor, Coordinator, Guidance Services,
Venango Campus
Community College of Philadelphia, A.G.S.; The Pennsylvania State University, B.S., M.Ed.
- GUSTAV A. KONTIZKY, (1963), Ph.D., Professor, Anthropology
Curator of Museum; Director of Archaeological Field Programs
University of Glessen (B.S. equiv.); University of Bonn (B.A. equiv.); University of Kiel,
Purdue University, M.S.; Indiana University, Ph.D.
- RONALD A. KOPAS, (1967), M.S., Associate Professor, Mathematics
University of Pittsburgh, B.S.; Purdue University, M.S.
- WILLIAM KRUGH, (1974), Ph.D., Professor, Chemistry
Juniata College, B.S.; Pennsylvania State University, Ph.D.
- ALLAN D. LARSON, (1971), Ph.D., Professor, Communication
St. Olaf College, B.A.; Michigan State University, M.A.; Ohio University, Ph.D.
- JAROPOLK LASSOWSKY, (1977), Ph.D., Assistant Professor, Music
New York College of Music, B. Mus.; New York University, M.A. in Music Education; Ohio
State University, Ph.D.
- JOHN A. LASWICK, (1966), Ph.D., Assistant Professor, Chemistry
University of Colorado, B.A.; Cornell University, Ph.D.
- PATTY H. LASWICK, (1970), Ph.D., Professor, Chemistry
Oberline College, B.A.; Brooklyn College, M.A.; University of Michigan, Ph.D.
- CONNIE J. LAUGHLIN, (1983), M.Ed., Associate Director, Career Placement Services
Indiana University of Pennsylvania, B.S., M.Ed.
- MILUTIN LAZICH, (1968), M.Mus., Associate Professor, Music-Voice, Music Education and
Director of Choirs
Indiana University B.M.E., M.S.Ed., M.Mus.
- CHARLES D. LEACH, (1969), Ed.D., Professor of Education, Vice President for Finance and
University Treasurer
Lycoming College, B.S.; Pennsylvania State University, M.Ed., Ed.D.
- DONALD E. LEAS, (1966), M.S., Associate Professor, Health and Physical Education
Michigan State University, B.A.; Southern Illinois University, M.S.
- REBECCA RUTT LEAS, (1979), Assistant Professor, Health and Physical Education
West Chester University, B.S., M.Ed.
- THOMAS A. LEAVY, (1976), Ph.D., Professor, Geography and Earth Science
Slippery Rock University, B.S.; The Pennsylvania State University, M.S.; University of
Pittsburgh, Ph.D.

- ANNETTE LEGE, (1983), M.B.A., Assistant Professor, Computer Information Science
Indiana University of Pennsylvania, B.A., M.B.A.
- ROBERT E. LEONARD, (1970), L.P.T., M.P.E., Associate Professor, Health and Physical
Education
Purdue University, B.P.E., M.P., L.P.T.
- HELEN S. LEPKE, (1984), Ph.D., Assistant Academic Vice President
Connecticut College, B.A.; Middlebury College, M.A.; University of Akron, Ph.D.
- FRANK LIGNELLI, JR., (1957), M.Ed., Professor, Director of Athletics
Clarion University, B.S.; University of Pittsburgh, M.Ed.; Penn State, M.Ed.
- LOIS S. LINNAN, (1968), M.A., Associate Professor, Mathematics
Clarion University, B.S.; Boston College, M.A.
- WILLIAM H. LLOYD, (1980), M.S., Assistant Professor, Communication
University of Pittsburgh, B.A., M.S.
- JOHN LOVELACE, (1984), M.S., Instructor, Equal Opportunities Program - Act 101
Clarion University, B.S., M.S.
- DONALD K. LOWE, (1968), M.A., Associate Professor, Mathematics and Statistics
University of Pittsburgh, B.S., M.A.
- BRUCE MacBETH, (1967), B.S., Instructor, English
Clarion University, B.S.
- RALPH A. MAGGIO, (1982), Ph.D., Professor, Administrative Science
Boston University, B.A.; Rutgers, The State University, M.Sc.; University of Pittsburgh,
M.B.A.; The Ohio State University, Ph.D.
- STEVEN G. MAIDA, (1985), Captain, U.S. Army, Assistant Professor, Military Science,
Reserve Officer Training Corps
United States Military Academy, West Point, B.S.
- DAVID R. MARCHAND, (1984), M.S., Assistant Professor, Mathematics
Western Illinois University, B.S., M.S.
- PATRICIA MARINI, (1973), M.S., Assistant Professor, Chair, Communication
Mercyhurst College, B.A.; Wayne State University, M.A.
- CHARLES L. MARLIN, (1966), Ph.D., Associate Professor, Speech Communication and
Theater; Director, Sanford Art Gallery
University of Missouri, B.S.Ed., Indiana University, M.A., Ph.D.
- THOMAS J. MATCZYNSKI, (1981), Ph.D., Dean, College of Education and Human Services
University of Dayton, B.S., M.Ed.; Ohio University, Ph.D.
- COLLEEN McALEER, (1982), Ph.D., Associate Professor, Speech Pathology and Audiology
The Pennsylvania State University, B.S.; Clarion University, M.Ed.; Kent State University,
Ph.D.

- GERARD B. McCABE, (1982), A.M.L.S., Professor, Director of Libraries
Manhattan College, B.A.; University of Michigan, A.M.L.S.; Michigan State University, M.A.
- WILLIAM A. McCAULEY, (1967), Ph.D., Professor, Psychology
State College Geneseo, N.Y., B.Ed.; Colorado State, M.A.; Syracuse University, Ph.D.
- BARRY L. McCAULIFF, (1974), M.A., Instructor, Speech Communication and Theater
Clarion University, B.A.; Central Michigan University, M.A.
- JAMES E. McDANIEL, (1965), A.M.L.S., Assistant Professor, Librarian
Eastern Michigan University, B.A., M.A.Ed.; University of Michigan, A.M.L.S.
- GLENN R. McELHATTAN, (1968), Ed.D., Professor, Chemistry
Clarion University, B.S.Ed.; Western Reserve University, M.S.; University of Pittsburgh, Ed.D.
- CHARLES McGEE, (1985), M.A., Associate Professor, Administrative Sciences
University of California at Santa Barbara, B.A., University of Southern California, M.A.
- WILLIAM C. McGOWAN, (1982), Ph.D., Professor, Physics
Spring Hill College, B.S.; University of North Carolina, Ph.D.
- MARY ANN McLAUGHLIN, (1982), Ph.D., Associate Professor, Education
Butler University, B.A., M.S.; Indiana University, Ph.D.
- JOHN McLEAN, (1977), Ed.D., Associate Professor, Music
Manhattan School of Music, B.M., M.M., M.Mus.Ed.; Teachers College Columbia University, Ed.D.
- SUSANNE M. McMILLEN, (1978), M.S., Assistant Director of Admissions
Clarion University, B.S., M.S.
- FRANCINE McNAIRY, (1973), Ph.D., Associate Professor; Dean, Academic Support Services
and Assistant to the Academic Vice President
University of Pittsburgh, B.A., M.S.W., Ph.D.
- ROGER J. McPHERSON, (1981), Ph.D., Associate Professor, Biology
Limestone College, B.S.; University of North Carolina at Charlotte, M.S.; University of Alabama at Birmingham, Ph.D.
- KENNETH R. MECHLING, (1966), Ph.D., Professor, Chair, Biology and Science Education
Indiana University of Pennsylvania, B.S., M.Ed.; Michigan State University, Ph.D.
- RICHARD M. METCALF, (1967), Ed.D., Professor, Communication
Illinois State University, B.S., M.S.; Indiana University, Ed.D.
- STANLEY F. MICHALSKI, JR., (1961), Ed.D., Professor, Music and Music Education,
Conductor of Bands
Pennsylvania State University, B.S., M.Ed., Ed.D.
- MARILYNN MIKOLUSKY, (1970), Ph.D., Associate Professor, Associate Dean of Student Life
Services
Michigan State University, B.A., M.A.; Ohio State University, Ph.D.

- WILLIAM MILLER, (1978), M.Ed., Assistant Professor, Health and Physical Education
Slippery Rock University, B.S., M.Ed.
- J. REX MITCHELL, (1966), Ed.D., Professor, Music
Muskingum College, B.S.; Kent State University, M.E.M.; The Pennsylvania State University, Ed.D.
- MELVIN A. MITCHELL, (1965), M.Ed., Professor, Mathematics
Indiana University of Pennsylvania, B.S., M.Ed.
- ELAINE E. MOORE, (1970), M.L.S., Associate Professor, Librarian
Clarion University, B.S.; University of Pittsburgh, M.L.S.
- J. ROBERT MOORE, (1965), Ph.D., Professor, Biology
Clarion University, B.S.; University of Pittsburgh, M.S., Ph.D.
- JOHN N. MOORHOUSE, (1961), Ed.D., Professor, Education
California University, B.S.; University of Pittsburgh, M.Ed.; Pennsylvania State University, Ed.D.
- DON L. MORGAN, (1968), Ph.D., Professor, Admissions Counselor
Northwest Nazarene, B.A.; University of Iowa, M.Ed.; University of Iowa, Ph.D.
- BARRY S. MORRIS, (1984), M.A., Director of Residence Life
Southern Methodist University, B.A.; College of William & Mary, M.A., A.C.E.
- TERRY MORROW, (1975), Ph.D., Professor, Biology
Grove City College, B.S.; Bowling Green State University, M.A., Ph.D.
- PETER H. NACHTWEY, (1968), Ph.D., Professor, Psychology
University of Rochester, B.A.; Columbia University, M.A.; Professional diploma. Vocational Counseling, Teachers College, Columbia University; University of Pittsburgh, Ph.D.
- DONALD A. NAIR, (1968), Ed.D., Professor, Counselor
The Pennsylvania State University, B.S., M.Ed., Ed.D.
- CASSANDRA NEELY, (1978), M.A., Instructor, Director, Upward Bound Program
The Pennsylvania State University, B.A.; Clarion University, M.A.
- HENRY W. NEWMAN, (1962), Ph.D., Associate Professor, English
Syracuse University, B.A.; University of Pennsylvania, M.A.; State University of New York at Buffalo, Ph.D.
- RICHARD J. NICHOLLS, (1981), Ph.D., Associate Professor, Chair, Psychology
Monmouth College, B.A.; Texas Tech University, Ph.D.
- DILARA NIKOULIN, (1969), M.D., Associate Professor, Russian
University of Leningrad, M.D.; University of Montreal, M.A.
- ROBERT L. NORTHEY, (1963), M.A., Assistant Professor, Mathematics
Clarion University, B.S.; Rutgers University, M.A.
- SHARON OLESAK, (1981), Assistant Professor, Health and Physical Education
Bowling Green State University, B.S., M.Ed.

- KATHRYN OSTERHOLM, (1977), M.A., Assistant Professor, English
Salisbury State College, B.A.; Virginia Polytechnic Institute and State University, M.A.
- RANDON C. OTTE, (1976), M.B.A., Assistant Professor, Accountancy
Clarion University, B.S., M.B.A., State of Pennsylvania, CPA.
- RICHARD L. PAE, (1968), M.Ed., Associate Professor, Health and Physical Education
Pennsylvania State University, B.S.; Shippensburg University, M.Ed.
- FRANK A. PALAGGO, (1964), M.Ed., Associate Professor, Education
Clarion University, B.S.; Pennsylvania State University, M.Ed.
- HUGH WINSTON PARK, (1959), Ph.D., Professor, English
Hiram College, B.A.; Western Reserve University, M.A.; University of Utah, Ph.D.
- JAMES G. PESEK, (1980), Ph.D., Associate Professor, Chair, Administrative Sciences
Bowling Green State University, B.S., M.A.; University of Pittsburgh, Ph.D.
- LEONARD A. PFAFF, (1964), M.A., Associate Professor, Communication
Southwest Missouri State College, B.S.; George Peabody College, M.A.
- CHARLES J. PINENO, (1979), Ph.D., Professor, Chair, Accountancy
The Pennsylvania State University, B.S.; University of Scranton, M.B.A.; The Pennsylvania State University, Ph.D.
- STEVEN L. PIOTT, (1985), Ph.D., Assistant Professor, History
University of Utah, B.A., M.A.; University of Missouri, Ph.D.
- ANDOR S. P-JOBB, (1963), M.A., Associate Professor, Art
Art Academy of Budapest; Clarion University, Kent State University, B.F.A., M.A.
- RANDALL M. POTTER, (1981), Ph.D., Associate Professor, Psychology
University of Michigan at Flint, A.B.; Miami University, M.A., Ph.D.
- ANTONIO L. QUE, (1985), Ph.D., Professor, Accountancy
University of the East, Philippines, B.B.A.; New York University, M.B.A., Ph.D.; Philippines and State of Virginia, CPA.
- ROBERT A. RATH, (1975), Ph.D., Associate Professor, Chair, Anthropology, Philosophy, Political Science, and Sociology
University of Southern Mississippi, B.S.; Pennsylvania State University, M.A., Ph.D.
- JOHN REED (1971), Ph.D., Professor, Administrative Science
University of North Carolina, B.A.; American University, M.A., Ph.D.
- JOHN F. REINHARDT, (1962), Ph.D., Associate Professor, English
Grove City College, B.A.; New York University, M.A.; University of Pittsburgh, Ph.D.
- J. IVAN RHODE, (1962), Ph.D., Associate Professor, Physics
Purdue University, B.S., Ph.D.
- KENNETH W. RICHTER, (1982), B.S., Health and Physical Education
Lock Haven University, B.S.

- SALLY J. RINGLAND, (1967), M.S., Associate Professor, Mathematics
Purdue University, B.S., M.S.
- EDWARD L. ROCKLIN, (1981), Ph.D., Associate Professor, English
Harvard College, B.A.; Rutgers University, M.A., Ph.D.
- THOMAS J. ROOKEY, (1983), Ed.D, Dean, Venango Campus
SUNY, Buffalo, B.A.; Bucknell University, M.S.; Lehigh University, Ed.D.
- ELIZABETH L. ROSS, (1972), Specialist in Business, Professor, Computer Information
Science
Missouri Valley College, B.S.; University of Kansas, M.S.; Central Missouri State University,
Specialists in Business.
- WILLIAM N. ROSS, (1972), Ph.D., Professor, Economics
University of Missouri, B.S., M.S.; Kansas State University, Ph.D.
- CHARLES A. RUSLAVAGE, (1964), M.Ed., Associate Professor, Health and Physical
Education
Pennsylvania State University, B.S., M.Ed.; Slippery Rock University, M.Ed.
- WILLIAM SANDERS, (1981), Ph.D., Associate Professor, Economics
Indiana University of Pennsylvania, B.A.; Long Island University, M.C., M.A.; Pennsylvania
State University, Ph.D.
- JAMES J. SCANLON, (1985), Ph.D., Dean, College of Arts and Sciences
Manhattan College, A.B.; Brown University, Ph.D.
- DONNA M. SCHAEFFER, (1980), M.Ed., Instructor, Academic Guidance Counselor, Special
Services
Clarion University, B.S.; Towson State University, M.Ed.
- THOMAS E. SCHAEFFER, (1976), Ph.D., Associate Professor, Computer Information
Science
University of Missouri, B.A., M.A.; St. Louis University, Ph.D.
- WILLIAM M. SCHELL, (1969), M.S., Assistant Professor, Computer Information Science
Geneva College, B.S.; Westminster College, M.S.
- RONALD V. SCHLECHT, (1973), M.S., Assistant Professor, Administrative Assistant to Dean,
Venango Campus
Corning Community College, A.A.; State University of New York at Buffalo, B.S.Ed.;
Kansas State Teachers College, M.S.Ed.
- ROY H. SCHREFFLER, (1966), Ed.D., Professor, Special Education
Juniata College, B.S.; Pennsylvania State University, M.Ed., Ed.D.
- EUGENE A. SEELYE, (1961), M.A., Associate Professor, Chair, Art Department
Indiana University of Pennsylvania, B.S.; Columbia University, M.A.
- PAULINE A. SELESKI, (1979), M.A., Instructor, Educational Advisor for the Act 101 Program
Wilkes College, B.A.; Ball State University, M.A.
- HUGH SEMON, (1975), Ph.D., Associate Professor, Psychology
University of Florida, B.A.; M.R.C.; Kent State University, M.A., Ph.D.

- FRANK H. SESSIONS, (1977), Ph.D., Dean, College of Graduate Studies and Continuing Education
Ohio State University, B.S.Ed., M.A.; Kent State University, Ph.D.
- WILLIAM R. SHARPE, (1970), Ph.D., Professor, Chemistry
LaSalle College, B.A.; University of Pittsburgh, Ph.D.
- C. DARREL SHERAW, (1978), Ph.D., Associate Professor, English
Clarion University, B.S.; Ohio University, M.A., Ph.D.
- MARTHA A. SHILEY, (1979), M.N., Assistant Professor, Nursing
University of Pittsburgh, B.S.N., M.N.
- DANIEL K. SHIREY, JR., (1964), Ed.D., Professor, Special Education
Pennsylvania State University, B.S., M.S., Ed.D.
- GEORGE S. SHIREY, (1966), Ph.D., Professor, Chair, Geography and Earth Science
Slippery Rock University, B.S.; Miami University, M.A.; University of Pittsburgh, Ph.D.
- JOHN S. SHROPSHIRE, (1972), B.S., Dean of Admissions and Enrollment Management
Clarion University, B.S.
- RONALD C. SHUMAKER, (1964), Ph.D., Professor, English
Clarion University, B.S.; Purdue University, M.A.; University of Pittsburgh, Ph.D.
- DILNAWAZ A. SIDDIQUI, (1984), Ph.d., Associate Professor, Communication
Aligarh Muslim University, B.A., M.A.; University of London (U.K.), Post-grad Dip. Ed.;
Syracuse University, Ph.D.
- EARL R. SILER, (1972), Ed.D., Professor, Chair, Education Department
Alfred University, B.A.; SUNY at Oneonta, M.S.Ed.; SUNY at Albany, ED.D.
- EDWIN R. SIMPSON, (1966), M.A., Assistant Professor, Speech Pathology and Audiology
Bloomsburg University, B.S.; University of Iowa, M.A.
- MALIK SIMBA, (1985), Ph.D., Assistant Professor; Coordinator, Minority Curriculum Development
University of Southern Colorado, B.A.; University of Minnesota, M.A., Ph.D.
- SAHIB SINGH, (1971), Ph.D., Professor, Mathematics
Punjab University, B.A., M.A.; University of Pennsylvania, M.A.; Pennsylvania State University, Ph.D.
- SARJIT SINGH, (1964), Ph.D., Professor, Economics
Oklahoma State University, M.S., Ph.D.
- C. GORDON SMITH, (1983), M.B.A., Lieutenant Colonel, U.S. Army, Professor, Military Science, Reserve Officers' Training Corps
Texas Tech University, B.B.A.; West Texas State University, M.B.A.
- JACK H. SMITH, (1968), M.A., Associate Professor, Speech Pathology and Audiology
St.Cloud State College, B.S.; University of Nebraska, M.A.

- JOHN W. R. SMITH, (1977), Ph.D., Professor, Education
University of Texas, B.B.A., M.B.A.; Texas Women's University, Ph.D.
- KATHLEEN A. SMITH, (1973), M.Ed., Assistant Professor, Special Education
Indiana University of Pennsylvania, B.S.; Clarion University, M.Ed., M.S.
- PHYLLIS W. SMITH, (1968), Ph.D., Professor, Education
Corcordia College, B.A.; Temple University, M.Ed.; Southern Illinois University, Ph.D.
- WILLIAM H. SNEDEGAR, (1967), Ph.D., Professor, Chair, Physics
West Virginia University, A.B., M.S.; University of Kentucky, Ph.D.
- C. RICHARD SNOW, JR., (1973), M.S., Assistant Professor, Librarian
Kent State University, B.A.; Florida State University, M.S.
- EUGENE S. SOBOLEWSKI, (1971), M.Ed., Associate Professor, Health and Physical Education
University of Pittsburgh, B.S.; Slippery Rock University, M.Ed.
- SOONG SOHNG, (1981), Ph.D., Associate Professor, Economics
Seoul National University, B.A.; Wayne State University, M.A., Ph.D.
- ELDON K. SOMERS, (1969), Ed.D., Associate Professor, Social Science
Canisius College, B.S.; University of Buffalo, Ed.D.; Christ the King Seminary, Div.M.,
State University of New York at Buffalo, Ed.D.
- SYLVIA STALKER, (1985), Ph.D., Assistant Professor, Education
Keuka College, B.A.; Stephen P. Austin State University, M.Ed.; Indiana University, Ph.D.
- WILLIAM STINE, (1981), Ph.D., Associate Professor, Economics
University of New Haven, B.B.A.; Baruch College, M.B.A.; Fordham University, Ph.D.
- DEAN F. STRAFFIN, (1973), Ph.D., Associate Professor, Anthropology
University of Iowa, B.A., M.A., Ph.D.
- BARBARA R. STRIGHT, (1981), M.S.N., Assistant Professor, Nursing
The Pennsylvania State University, B.S.N.; Catholic University, M.S.N.
- THOMAS J. STUHLREHER, (1985), DBA, Professor, Finance
Borromeo College, B.A.; University of Notre Dame, M.A.; Kent State University,
M.B.A., D.B.A.
- FRANKLIN S. TAKEI, (1962), Ph.D., Professor, Philosophy
University of Hawaii, B.A.; Fuller Theological Seminary, B.D.; University of Hawaii, M.A.;
Pennsylvania State University, Ph.D.
- RICHARD W. TAYLOR, (1982), D.P.E., Professor, Health and Physical Education
Syracuse University, B.A., M.S.; Springfield College, D.P.E.
- GIVEN L. THORNTON, (1971), Ph.D., Professor, Psychology
Michigan State University, B.A.; University of Denver, M.A., Ph.D.
- DAVID A. TOMEO, (1975), M.A., Director of College Centers
Indiana University of Pennsylvania, B.S.Ed., M.A.

- JAMES G. TOMESTSKO, (1985), M.B.A., Resident Director
St. Vincent College, B.S.; Clarion University of PA, M.B.A.
- KENNETH TRAYNOR, (1976), Ph.D., Professor, Marketing
Montclair State College, B.A.; The University of Connecticut, M.A., Ph.D.
- SUSAN TRAYNOR, (1976), M.A., Assistant Professor, Computer Information Science
The University of Connecticut, B.A.; Fairfield University, M.A.
- LOUIS F. TRIPODI, (1973), M.Ed., Assistant Professor, Director of Student Development
Services
Hiram College, B.A.; Cleveland State University, M.Ed.
- GAYLE A. TRUITT-BEAN, (1979), M.A., Assistant Professor, Health and Physical Education
DePauw University, A.B.; Kent State University, M.A.
- NGO DINH TU, (1966), Ph.D., Professor, Political Science
National College of Vietnam, B.A.; American University, M.A.; Harvard University, Ph.D.
- GILBERT L. TWIEST, (1968), Ph.D., Professor, Biology-Science Education
Michigan State University, B.S., M.S.; University of Toledo, Ph.D.
- GRACE E. URRICO, (1970), M.M., Associate Professor, Music
New England Conservatory of Music, B.M. Mus. Ed., M.M., Piano.
- JAY VAN BRUGGEN, (1962), M.A., Associate Professor, Political Science
Calvin College, B.A.; Western Michigan University, State University of Iowa, M.A.
- MARGUERITE H. VANLANDINGHAM, (1981), Ph.D., Dean, College of Business
Administration
University of Florida, B.A., Ph.D.
- R. SUZANNE VAN METER, (1965), Ph.D., Professor, History
Hastings College, A.B.; Indiana University, M.A., Ph.D.
- BERNARD F. VAVREK, (1971), Ph.D., Professor, Library Science; Coordinator, Center for
Rural Librarianship
California University, B.S., University of Pittsburgh, M.L.S., Ph.D.
- THOMAS T. VERNON, (1969), Ph.D., Professor, Economics
Colorado State University, B.S., M.S.; Kansas State University, Ph.D.
- M. JEAN VEST, (1985), B.S., Resident Director
Bowling Green University, B.S., Indiana University, B.S.
- HAL R. WASSINK, (1973), M.A., Associate Professor, Coordinator of Student Activities
Bowling Green State University, B.A., M.A.
- DAVID J. WEATHERBY, (1984), Captain, U.S. Army, Assistant Professor, Military Science
Reserve Officer Training Corps; Lafayette College, B.A.
- FRANCES E. WEBER, (1971), M.S.N., Assistant Professor, Nursing Education
Hospital of the University of Pennsylvania School of Nursing, R.N.; University of
Pennsylvania, B.S.N., M.S.N.

- ADAM F. WEISS, (1965), Ph.D., Professor, Chair, Speech Communication and Theater
University of Pennsylvania, B.A.; University of Denver, M.A., Ph.D.
- LAWRENCE J. WELLS, (1977), M.M., Assistant Professor, Music, Assistant Director of Bands
University of Idaho, B.M.E.; University of Oregon, M.M. in Performance (Percussion)
- MARILYN J. WESTERKAMP, (1985), Ph.D., Assistant Professor, History
Brandeis University, B.A.; University of Pennsylvania, M.A., Ph.D.
- JOHN E. WILLIAMS, (1963), Ph.D., Professor, Biological Science
Pennsylvania State University, B.S.; University of Illinois, Ph.D.
- MARY ELIZABETH WILLIAMS, (1962), M.L.S., Assistant Professor, Librarian
Clarion University, B.S.; University of Pittsburgh, M.L.S.
- SUSAN B. WILLIAMS, (1966), Ph.D., Professor, Psychology
Grove City College, B.S.; University of Pittsburgh, M.Ed., Ph.D., Pennsylvania
Psychologist License.
- RONALD J. WILSHIRE, (1978), M.S., Director of Public Affairs
Clarion University, B.S., M.S.
- DONALD A. WILSON, (1969), Ph.D., Associate Professor, English
Niagara University, B.A.; State University of New York at Buffalo, M.A., Ph.D.
- THOMAS V. WIMER, (1968), M.S., Associate Professor, Mathematics
University of Pittsburgh, B.S., M.S.
- GEORGE F. WOLLASTON, (1961), Ph.D., Associate Professor, Chemistry
Clarion University, B.S.; Pennsylvania State University, M.Ed.; University of Pittsburgh,
Ph.D.
- ALAN WRIGHT, (1984), Sergeant Major, U.S. Army, Assistant Professor, Military Science
Reserve Officer Training Corps.
- DAVID R. WRIGHT, (1971), Ph.D., Professor, Speech Communication and Theater (Part-
time)
Southwest Baptist College, A.A.; University of Missouri, B.J., M.A.; Ohio University, Ph.D.
- GIST M. WYLIE, (1983), B.A., Major, PA National Guard, Assistant Professor, Military
Science, Reserve Officer Training Corps
Thiel College, B.A.
- J. KENNETH WYSE, (1964), M.S. in L.S., Assistant Professor, Librarian
Clarion University, B.S.; Western Reserve University, M.S. in L.S.
- CHIN-WEI YANG, (1981), Ph.D., Associate Professor, Economics
College of Chinese Culture, B.A.; Northwest Missouri State University, M.B.A.; West
Virginia University, M.A., Ph.D.
- WOODROW W. YEANEY, (1975), Ph.D., Director, Small Business Development Center,
Entrepreneurial Technology Center, and Small Business Institutes
Pennsylvania State University, B.S., M.B.A., Ph.D.

ROBERT M. YOHO, (1968), Ed.D., Associate Professor, Education
Miami University, Juniata, B.A.; Pennsylvania State University, M.Ed., Ed.D.

ARNOLD H. ZAESKE, (1968), Ed.D, Professor, Education
Elmhurst College, B.A.; University of Illinois, M.A.; University of Missouri, M.Ed.,Ed.D.

RICHARD ZALLYS, (1966), M.A., Associate Professor, Philosophy
University of Chicago, Ph.B., M.A.

CRAIG E. ZAMZOW, (1983), D.G.S., Assistant Professor, Geography and Earth Science
University of Wisconsin, B.S.; University of Minnesota-Duluth, M.S.; University of Texas at
El Paso, D.G.S.

COURTESY FACULTY IN MEDICAL TECHNOLOGY

ALTOONA HOSPITAL, ALTOONA, PA

EUGENE M. SNEFF, M.D., Director, School of Medical Technology
JOSEPH NOEL, MT (ASCP), Program Director

CONEMAUGH VALLEY MEMORIAL HOSPITAL, JOHNSTOWN, PA

SIDNEY A. GOLDBLATT, M.D., Director of Clinical Laboratory and School of Medical
Technology
PATRICIA CHAPPELL, MT (ASCP), Education Coordinator, School of Medical
Technology

DIVINE PROVIDENCE HOSPITAL, WILLIAMSPORT, PA

G. AHMED, M.D., Director, School of Medical Technology
MRS. LORETTA MOFFATT, MT (ASCP), Educational Coordinator, School of Medical
Technology

HARRISBURG HOSPITAL, HARRISBURG, PA

HIM G. KWEE, M.D., Medical Director of Laboratories
JANICE M. FOGLEMAN, MT (ASCP), Program Director

ST. VINCENT HOSPIAL, ERIE, PA.

KENNETH H. JURGENS, M.D., Director, School of Medical Technology
SUE LAWTON, MT (ASCP), M.S., Educational Coordinator, School of Medical
Technology

WESTERN PENNSYLVANIA HOSPITAL, PITTSBURGH, PA.

THE BENEDUM SCHOOL OF MEDICAL TECHNOLOGY

ALEXANDER STAVRIDES, M.D., Director, Benedum School of Medical Technology
VIRGINIA DELL CRAIG, MT (ASCP), Educational Coordinator, Benedum School of
Medical Technology.

RETIRED ADMINISTRATION AND FACULTY

PAUL G. CHANDLER, (1937-1960), Ph.D., President

Kentucky Wesleyan, B.A.; Columbia University, M.A., Ph.D.

JAMES GEMMELL, (1960-1976), Ed.D., President

University of Wyoming, B.S.; Syracuse University, State University of New York, Albany, M.S.; New York University, Ed.D.

JAMES D. MOORE, (1943-1972), M.Ed., Professor, Dean of Academic Affairs

Muskingum College, A.B.; University of Pittsburgh, M.Ed.

DANA S. STILL, (1948-1983), Ph.D., Professor, Provost and Academic Vice President

Ohio State University, B.S., M.A., University of Pittsburgh, Ph.D.

PRABHAKAR S. AKOLEKAR, (1966-1978), Ph.D., Professor, Economics

Holkar College, Indore (India), B.A.; Bombay University, M.A.; University of Virginia, M.A.; John Hopkins University, Research Fellow; University of Pennsylvania, Ph.D.

FRANCIS C. BAPTIST, (1961-1985), Ed.D., Professor, Art

Wisconsin State College, B.S.; State University of Iowa, M.F.A.; Pennsylvania State University, Ed.D.

GEORGE BARBER, (1967-1985), Ph.D., Professor, English

The Pennsylvania State University, B.A., M.A., Ph.D.

GWENDOLYN M. BAYS, (1962-1981), Ph.D., Professor, French

Anges Scott College, B.A.; Emory University, M.A.; Yale University, Ph.D.

ROBERT A. BAYS, (1962-1981), Ph.D., Professor, Modern Language

Emory University, B.A.; Yale University, M.A., Ph.D.

HELEN M. BECKER, (1925-1961), M.A., Assistant Professor, Elementary Education

Graduate, Clarion University; University of Pittsburgh, B.S.; Teachers College, Columbia University, M.A.

ALPHA E. BERNARD, (1955-1983), Ed.D., Professor, Psychology

Northern Michigan College of Education, B.S.; Indiana University, M.S. in Ed., Ed.D.

CHARLES H., BLOCHBERGER, (1966-1985), Ed. D., Professor, Education, Director of Counseling and Career Planning Center

University of Scranton, B.S.; University of Maryland, M.Ed.; University of Virginia, Ed.D.

MARGARET A. BOYD, (1929-1956), M.A., Associate Professor, English

Graduate, two-year course, Bethany College; University of Pittsburgh, B.A., M.A.

RICHARD M. BRADLEY, (1968-1978), Ed.D, Associate Professor, Education

Millersville University, B.S.; Temple University, M.Ed., Ed.D.

MARGARET V. BUCKWALTER, (1965-1982), M.L.S., Assistant Professor, Librarian

University of Michigan, B.S., M.A.; University of Pittsburgh, M.L.S.

- TRACY V. BUCKWALTER, (1965-1983), Ph.D., Professor, Geology
University of Michigan, B.S., M.S., Ph.D.
- MARY M. BUTLER, (1961-1974), M.L.S., Assistant Professor, Librarian
University of Pittsburgh, B.A.; Carnegie-Mellon University, M.L.S.
- RENA M. CARLSON, (1929-1963), M.A.L.S., Associate Professor, Head Librarian
Greenville College, B.A.; Carnegie Institute of Technology, B.S.L.S.; University of Michigan, M.A.L.S.
- CARL E. CALDWELL, (1956-1977), M.A., Associate Professor, French
Hobart College, A.B.; Middlebury College, M.A.
- THOMAS A. CARNAHAN, (1946-1975), M.Ed., Professor, Mathematics
Grove City College, B.A.; Pennsylvania State University, M.ED.
- FOREST C. CARTER, (1967-1981), D.B.A, CPA, Dean, School of Business Administration;
Professor, Accounting and Finance
University of Michigan, B.B.A., M.B.A.; Indiana University, D.B.A.; State of Tennessee,
CPA.
- WILLIAM D. CHAMBERLAIN, (1965-1981), Ed.D., Professor, Science Education and Biology
Wayne State University, B.S., M.Ed., Ed.D.
- PATRICIA J. CONNOR, (1969-1981), D.M.A., Professor, Music
Oklahoma University, B.M.E.; North Texas State University, M.M.; Boston University,
D.M.A.; Fulbright Scholar Italy
- DALPH O. COOK, (1964-1986), M.S., Assistant Professor, Biology
Clarion University, B.S., Syracuse University, M.S.
- BOB H. COPELAND, (1959-1985), Ph.D., Professor, Chair, Speech Communication and
Theater
University of Wichita, B.A.; University of Denver, M.A., Ph.D.
- THOMAS DAVIS, (1976-1986), Ph.D., Associate Professor, Administrative Science
University of Wyoming, B.S., M.S.; University of Arkansas, Ph.D.
- BRUCE H. DINSMORE, (1947-1978), Ph.D., Professor, Chair, Biology
Indiana University of Pennsylvania, B.S.; Columbia University, M.A.; University of
Pittsburgh, M.S., Ph.D.
- ALLEN R. ELLIOTT, (1965-1977), Ed.D., Professor, Psychology
Western Michigan University, B.A.; Stanford University, M.A., Ed.D.
- CHARLES R. FLACK, (1941-1965), M.A., Associate Professor, Director of Library Sciences
Library School, University of Wisconsin; University of Alberta, B.A.; University of Illinois,
B.L.S., M.A.

- JOSE G. GARCIA, (1964-1984), Ph.D., Associate Professor, Spanish
University of Valencia, B.A., M.A.; Interamerican University, Mexico, Ph.D
- RACHEL M. GLENN, (1965-1978), B.S., Instructor, Librarian
Simmons College, B.S. in L.S.
- DAN W. GRAVES, (1965-1981), A.M.; Associate Professor, Director of Libraries
University of Denver, A.B.A.; University of Michigan, A.M.
- GEORGE A .HARMON, (1966-1984), Professor, Biology
University of California, Los Angeles, A.B.; Stanford University, M.A., Ph.D.
- WALTER L. HART, (1940-1977), M.F.A., Professor, Director of Admissions
Grvoe City College, B.M.; Carnegie Institute of Technology, M. of F.A.
- LEE W. HEILMAN, (1968-1976), M.A., Assistant Professor, English
Gettysburg College, A.B.; Duke Unviersity, M.A.; Lutheran Theological Seminary at
Gettysburg, MD.
- ROGER HUFFORD, (1963-1984), Ph.D., Professor, Speech Communication and Theater
Illinois State Normal, B.S., M.S.; King's College, Durham University, England, M.Litt.;
Southern Illinois University, Ph.D.
- NORMAN B. HUMPHREY, (1961-1983), M.S., Associate Professor, Geography
Slippery Rock University, B.S.; Florida State University, M.S.
- ARNOLD L. JESCHKE, (1966-1984), M.Ed., Instructor, English
Edinboro University, B.S., M.Ed.
- MARGERY C. JOHNSON, (1957-1981), M.S.L.S., Assistant Professor, Librarian
Geneva College; Clarion University, B.S., M.S. L.S.
- JOHN A. JOY, (1961-1976), M.Ed., Associate Professor, Health and Physical Education
Slippery Rock University, B.S.; University of Pittsburgh, M.Ed.
- ALFRED E. JUNOD, (1967-1980), Ed.D., Associate Professor, French
New York University, B.C.S., M.A.; University of Buffalo, Ed.D.
- ELAINE M. KING, (1963-1978), M.Ed., M.A., Associate Professor, English
Southwestern Oklahoma State College, B.A.; Indiana University of Pennsylvania, M.Ed.,
M.A.
- JAMES C. KING, (1956-1978), Ph.D., Professor, History
Northeastern Oklahoma State College, B.A.; University of Utah, Ph.D.
- JOSEPH J. KNOWLES, (1961-1977), M.Ed., Associate Professor, Health and Physical
Education
Waynesburg College, B.S.; University of Pittsburgh, M.Ed.
- HELEN KNUTH, (1958-1977), Ph.D. Professor, History
University of Dubuque, A.B.; Northwestern University, M.A., Ph.D.
- KATHERINE M. KOCHNO, (1967-1978), Ph.D., Associate Professor, Psychology
Institute of Natural and Medical Services, (Kharkov); Medical School, (Vinnytza); Medical
School (Lvov), Lemberg, Free University of Munich, Ph.D.

- MARGERT M. KORDECKI, (1964-1984), M.A., Associate Professor, Geography and Earth Science
Western Michigan University, B.S., M.S.; University of Hawaii, M.A.
- WALTER F. KOUKAL, (1966-1978), Ed.M., Associate Professor, Education
State University of New York, College at Buffalo, B.S.Ed; State University of New York at Buffalo, Ed.M.
- JOHN G. MAGER, (1965-1985), M.L.S., Associate Professor, Librarian
Concordia Seminary, B.A., Div.M., S.T.M.; Washington University, M.A.; University of California, M.L.S.
- ALLENE H. MASTERSON, (1962-1980), Ph.D., Associate Professor, French and Spanish
Geneva College, B.A.; University of Pittsburgh, M.Litt., Ph.D.
- HELEN McDONALD, (1974-1978), M.S., C.N.M., Assistant Professor, Nursing
Clarion University, B.S.Ed., Johns Hopkins University, B.S.N.; Yale University School of Nursing, M.S.N., C.N.M.
- WILLIAM M. McDONALD, (1957-1981), M.A., Associate Professor, Music, Director of Choirs
Indiana University of Pennsylvania, B.S.; New York University, M.A.
- NANCY S. McKEE, (1958-1984), M.L.S., Associate Professor, Librarian
Wilson College, A.B.; Carnegie-Mellon University, M.L.S.
- JOHN D. McLAIN, (1965-1985), Ed.D, Professor, Foreign Student Advisor
Southern Oregon College, B.S.; University of Oregon, M.Ed., Ed.D
- LESTER D. MOODY, (1956-1974), Ph.D., Professor, English
Washington State University, B.A.; University of Washington, M.A., Ph.D.
- ELEANOR D. MOORE, (1956-1972), M.S.L.S., Associate Professor, Library Science
Clarion University, B.S.; University of Pittsburgh, M.Ed.; School of Library Science, Columbia University, M.S.
- ELBERT R. MOSES, JR., (1959-1971), Ph.D., Professor, Chair, Speech and Dramatic Arts Department
University of Pittsburgh, A.B.; University of Michigan, M.S., Ph.D.
- PAUL R. MOSSER, (1965-1983), M.A., Associate Professor, Education
Kutztown University, B.S.; Lehigh University, M.A.
- JOHN NANOVSKY, (1967-1980), P.E.D., Professor, Director of College Centers
Miami University, B.S.Ed.; University of Pittsburgh, M.Ed.; Indiana University, P.E.D.
- LESTER C. OAKES, (1961-1980), M.S., Associate Professor, Geography
Teachers College of Connecticut, B.Ed.; New York University, M.A.; Union College, M.S.; Teachers College, Columbia University, Professional Diploma.
- GALEN L. OBER, (1956-1983), M.Ed., Assistant Professor, Physical Science
Indiana University of PA, B.S.; University of Pittsburgh, M.Ed.
- MICHEL G. OSSESIA, (1966-1986), Ph.D., Professor, Mathematics
University of Pittsburgh, B.S., M.Litt., Ph.D.

- WILLIAM J. PAGE, (1961-1977), Ed.D., Professor, Director of Professional Education Services and Career Planning and Placement
Fredonia State Teachers College; Temple University, B.S., M.Ed., Ed D.
- DONALD R. PAGANO, (1962-1985), M.S., Assistant Professor, Mathematics
Duquesne University, B.S.; Syracuse University, M.S.
- DONALD D. PEIRCE, (1932-1968), Ph.D., Professor, Head of Physical Science Department
Oberlin College, A.B.; Attended Clarion University, Graduate work at University of Pittsburgh, Pennsylvania State University, University of Illinois, M.A., Ph.D.
- LAWRENCE L. PENNY, (1959-1977), Ed.D., Professor, Psychology
Oklahoma State University, B.S. in Ed., M.S.; Kansas University, Ed.D.
- ANNETTE ROUSSEL-PESCHE, (1966-1981), M.A., Associate Professor, Music
Carnegie-Mellon University, B.A.; Ecole Normale de Musique de Paris, M.A.
- DONALD R. PREDMORE, (1947-1967), Ph.D., Professor, Biological Science
Miami University, University of Pittsburgh, B.S., M.A., Ph.D.
- GRACE PRYOR, (1955-1965), M.Ed., Assistant Professor, Dean of Women
Clarion University, B.S.; University of Pittsburgh, M.Ed.
- RICHARD K. REDFERN, (1968-1981), Ph.D., Professor, English
University of Illinois, B.S.; Cornell University, M.A., Ph.D.
- EUGENE L. RHOADS, (1961-1984), M.S. in Ed., Associate Professor, Mathematics
Clarion University, B.S.; University of Pennsylvania, M.S. in Ed.
- ELIZABETH A. RUPERT, (1961-1985), Ph.D., Professor, Dean, College of Library Science
Clarion University, B.S.; Syracuse University, M.S. in L.S.; University of Pittsburgh, Ph.D.
- ROBERT C. SEGEBARTH, (1968-1977), A.B., Professor, Director of Financial Aid Services
Colgate University, A.B.
- JAMES D. SHOFESTALL, (1959-1985), M.Ed., Associate Professor, Physics
Clarion University, B.S.; University of Pittsburgh, M.Ed.
- CHARLES J. SHONTZ, (1957), Ph.D., Professor, Associate Vice President for Academic Affairs and the Dean of Summer Sessions
Indiana University of Pennsylvania, B.S.; University of Pittsburgh, M.S., Ph.D.
- FRANCES M. SHOPE, (1967), M.Ed., Associate Professor, Health and Physical Education, Associate Director of Athletics
West Chester University, B.S.; Pennsylvania State University, M.Ed.
- BETTY SIMPSON, (1966-1979), B.S., Instructor, Health and Physical Education
West Chester University, B.S.
- GLENN L. SITZMAN, (1969-1983), M.S., Associate Professor, Librarian
Oklahoma Baptist University, B.A.; Baylor University, M.A.; Columbia University, M.S.

- DeWAYNE E. SLAUGENHAUPT, (1965-1982), M.S., Associate Professor, Physics
Clarion University, B.S.; University of Pittsburgh, M.Ed.; Clarkson College of Technology,
M.S.
- WALTER F. SNYDER, (1967-1978), Ph.D., Professor, History
Swarthmore College, B.A.; Yale University, Ph.D.; American Academy in Rome, F.A.A.R.
- IMOGENE SUMNER, (1962-1985), M.A., Associate Professor, Chair, History
Coe College, B.A.; University of Chicago, M.A.
- ZOE SWECKER, (1966-1984), Ph.D., Professor, History
University of North Carolina at Greensboro, A.B.; University of Chicago, Ph.D.
- CHRISTINE M. TOTTEN, (1965-1982), Ph.D., Professor, German
University of Berlin; University of Heidelberg, Ph.D.
- DON E. TOTTEN, (1965-1985), Ph.D., Professor, Geography and Earth Science
University of Chicago, M.A.; University of Heidelberg, Ph.D.
- CHARLES E. TOWNSEND, (1969-1981), Ed.D., Associate Professor, Finance and Business
Computers
Georgia Institute of Technology, B.S.; University of Missouri, M.S.; The Pennsylvania State
University, Ed.D.
- JOSEPH UZMACK, (1965-1985), Ed.D., Professor, Education
Clarion University, B.S.; Indiana University of Pennsylvania, M.Ed; Pennsylvania State
University, Ed.D.
- KENNETH G. VAYDA, (1962-1984), Ed.D., Professor, Special Education
Pennsylvania State University, B.S., M.S., Ed.D.
- PHILIP N. WALLACE, (1967-1980), M.A., Associate Professor, Director of Professional
Education Services
Clarion University, B.S.; University of Pittsburgh, M.A.
- ARTHUR A. WICHMANN, (1969-1981), Ph.D., Professor, Chair, Economics
Southeast Missouri State College, B.S.; Northwestern University, M.B.A., Ph.D.
- SAMUEL A. WILHELM, (1941-1972), Ph.D., Professor, History
Clarion University, B.S.; University of Pittsburgh, M.Litt., Ph.D.

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